Informing the Prevention of Child Sexual Abuse: Comparing Convicted Offenders and Minor-Attracted Persons

---

A thesis submitted in partial fulfilment of the requirements for the Degree of

Masters of Science in Psychology

by Harriette Culling

University of Canterbury

2018

Table of Contents

List of Tables and Figures

Acknowledgements

I would like to express my thanks and appreciation for the following important people who have supported me throughout my Masters Degree.

Firstly, I would like to express the deepest appreciation to my primary supervisor Dr. Sarah Christofferson. The passion she maintains for this research has been an inspiration, she believed in our project from the very beginning and took on this exciting challenge with me; I very am fortunate to have had Sarah as my mentor throughout this process. Without her guidance and persistent help this thesis would not have been possible.

To my co-supervisor, Prof. Randolph Grace, thank you for assistance throughout my project, your expert advice was greatly appreciated.

I would like to thank the Department of Corrections for providing me with all the necessary facilities and resources to recruit my very particular sample of participants and for providing me with the opportunity to work with them.

In addition, I would like to individually thank my Mum and Dad for their ongoing support and inspiring me to make a difference; my brother, for being the role model I look up to and always providing his wise words and guidance; to my partner and close friends for their continuous cheer and support; and lastly, thank you to my work colleagues who have backed me throughout the final stages of this thesis.

Abstract

The aim of the current study was to inform the prevention of child sexual abuse. It was an exploratory study that sought to add to the small but growing literature of Minor-Attracted Persons (MAPs). A sample of self-identified MAPs sample were compared with incarcerated child sex offenders (and a control group sampled from the general population), to examine their similarities and differences on four different measures. The comparative variables were selected based on theories regarding the etiology of sexually abusive behaviour and empirical factors linked with offending proclivity. The variables chosen were; self-regulation capacity, emotional functioning (empathy), social inadequacy (adult attachment styles) and pro-offending attitudes (cognitive distortions). Encouraging results were identified within this study and support for the hypotheses were evident. The most promising results involved cognitive distortions; MAPs and convicted offenders presented with similarly high levels of cognitive distortions and this differed from the control group. Further research in this area will help guide treatment plans, provide a more informative understanding of the MAP population, and strengthen the strategies used for encouraging potential offenders to seek treatment prior to committing an initial offence.

Keywords: prevention, child sexual abuse, Minor-Attracted Persons (MAPs), treatment, initial offence

1. Introduction

Sexual offending is unfortunately not an uncommon occurrence in society. According to Hanson and Morton-Bourgon (2005), approximately one to two percent of the adult male population are convicted of a sexual offence. Sexual offending and other deviant sexual behaviour can be manifested in many different ways. Hanson and Morton-Bourgon (2005) state that deviant sexual interests involves an enduring attraction to sexual acts that are illegal (e.g., sex with children, or rape) or highly unusual (e.g., fetishism, voyeurism, exhibitionism, etc.). Sexual offending is a worldwide issue that causes ongoing distress for a large number of victims, however many offences remain unreported which makes it difficult to gather an accurate picture of the real problem of sexual violence in our communities. Reporting of sexual violence in New Zealand is very low, with an estimated 9% of incidents reported to police (Ministry of Women Affairs, 2009). These low reporting rates can expose victims to repeat offending; which is a serious issue in New Zealand. Over 25% of adults in victimisation surveys report more than one incident, and qualitative research has found that survivors with a history of repeat victimisation are particularly vulnerable to exhibiting sexual violence (Ministry of Women Affairs, 2012). In addition, victims of sexual abuse, especially children, are at high risk for experiencing a variety of physical, medical, psychological and social struggles which becomes enormously expensive to society (Levine & Dandamudi, 2016). The majority of these costs fall on the large amount of adverse consequences that victims of child sexual abuse suffer, e.g., child mental health costs, child suicide and self-harm costs, adult mental health (depression and post-traumatic stress disorder (PTSD)) and adult physical health (alcohol and drug misuse) (Saied-Tessier, 2014). Other expenses include the criminal justice system costs (for the perpetrator of the abuse), services

for children (social care) and the lost productivity (unemployment) in society (Saied-Tessier, 2014).

Prevention research for sexual offending has continually focused on the factors that have been presumed or demonstrated to be associated with recidivism (i.e., the act of a previously convicted person repeating an undesirable behaviour (Hemphill et al., 1998)) risk rather than focusing on the prevention of initial offending (Beech, 1998; Hanson & Harris, 2000; Lindsay et al., 2007; Ward & Hudson, 1996, 1998; Yates & Kingston, 2006). Figures from New Zealand show that as many as 84% of those receiving relevant convictions (sexual) across a year have no prior record of sexual offending (Ministry of Justice, 2016). This highlights the importance of focusing efforts on the prevention of initial/first-time sexual offending (in addition to the traditional – and still vital – focus on reducing recidivism). Based on findings from overseas (Beier, 2016) it is apparent that there are likely living in most communities' people who experience a sexual interest towards children, but who are distressed by this and are motivated to seek help (so as, to not offend); it is this group who will be the focus of the current study. When it comes to trying to provide this help, however, an issue is that the vast majority of the evidence base for reducing risk is based on research with convicted samples. A study by Levine and Dandamudi (2016) addressed this group of individuals and identified them as 'pre-offenders'. Pre-offenders were defined as those who live among society and are prone to sexual abuse but have not yet committed an offence. Levine and Dandamudi (2016) explored whether a prevention framework used primarily for diabetes prevention could also be applied to child sexual offending. Their prevention model had five components: magnitude of problem; risk factors; screening test; effective intervention; and outcome data. From the model it was evident that diabetes and child sexual offending are of similar prevalence, yet the attention given child abuse prevention is largely scarce compared to the attention that diabetes prevention has received (Levine & Dandamudi,

2016). This emphasizes the importance of increasing research in this area to further develop prevention literature for child sexual offending. Little is known about the risk factors of 'pre-offenders' and in order to reduce the number of first time offences there needs to be a better understanding of the factors that contribute to initial offences. The term 'pre-offenders' suggests these individuals will offend at some point in the future, however there is no certainty that a person who has developed a sexual interest in children will definitely offend in the future. Without any intervention or treatment it may be that some level of risk will remain but they have not committed an offence against a child at this stage. Therefore, for the purpose of the current study, the sample of 'pre-offenders', as identified in Levine and Dandumudi (2016), will be classified as Minor-Attracted Persons (MAPs). MAPs have been defined in the literature as individuals who experience persistent attraction to children (Cohen et al., 2018; Levenson et al., 2017), which is a more suitable term for the current study. Additionally, MAPs has been classified as the preferred term for individuals who self-identify that they are attracted to underage minors (Kramer, 2011). The present study will more specifically define MAPs as individuals who self-identify that they experience persistent sexual attraction towards children but who have not committed a *contact* sexual offence against a child. Individuals in this population may have committed a non-contact offence such as distributing or viewing child sexual abuse material and/or engaged in other non-contact behaviours such as voyeurism or exhibitionism; therefore, a 'contact' sexual offence refers to inappropriate, psychical touching of a child (e.g., groping, sex, etc.).

1.1 Dynamic Risk Factors

Prevention literature that has focused on predictive factors and risk assessments relating to sexual offending (i.e. relapse prevention) and the various risk factors/pathways associated with recidivism (Relapse Prevention Model, Ward & Hudson, 1996; The Self-Regulation Model, Ward & Hudson, 1998; discussed in more detail below), has guided the

framework for interventions and treatment of sex offenders which aims to reduce further offending behaviour. In addition, factors associated with reoffending that are potentially changeable (dynamic risk factors) have also guided interventions (i.e., these have become targets for treatment). Dynamic risk factors have been described as characteristics linked with reoffending likelihood, that are potentially amenable to change and when changed should, theoretically at least, result in an increased or decreased recidivism risk (Hanson & Harris, 2000). Dynamic risk factors are often categorised as either 'stable' (e.g., intimacy deficits) or 'acute' (e.g., negative affective states such as negative mood) (Mann et al., 2010). While both stable and acute factors are important in predicting recidivism among offenders, stable factors are likely to be more useful considering possible intervention targets for the population of MAPs given they remain relatively constant across time in the absence of intervention. Key stable dynamic factors identified by Hanson and Harris (2000) included in their Sex Offender Need Assessment Rating (SONAR) scale, and later in the STABLE-2007/ACUTE-2007 (Hanson & Harris, 2010) were: intimacy deficits, social influences, pro-offending attitudes, sexual self-regulation, and general self-regulation. Yates et al. (2010) stated that sexual offenders appear to be especially prone to experiencing difficulties in relationships, intimacy, and social competency. Dynamic risk factors associated with these particular areas include intimacy problems, hostility towards women, and emotional identification with children.

It is important to address the theoretical issues related to risk and its conceptualisation that have been raised in the literature. Ward and Beech (2015) argued that dynamic risk factors are best interpreted as underlying causal mechanisms, rather than being causes themselves. That is, without any evidence or empirical support for dynamic risk factors being causal, particularly in relation to offending, a causal relationship cannot be assumed. However, many of the factors listed previously (i.e., relationships, intimacy, and social competency) have been found to feature in etiological theories (discussed in more detail

below) so they do obtain some theoretical support for being causal but these are not definitive causal relationships.

Researching the presence (or otherwise) of stable dynamic risk factors in MAPs should help to gain a better understanding of this population and the types of dysfunction they may experience in social, emotional and psychological areas that may be associated with their proclivity to offend for the first time. Identifying factors that are related directly to sexual offence recidivism has been a difficult task (Hanson & Harris, 2000), progressed across a period of decades. Hanson & Harris (2000) suggested that long-term recidivism is best predicted by static (e.g., offense history) or highly stable factors (e.g., personality disorders) and that future offenses can only be prevented by addressing currently present problems such as dynamic risk factors. Therefore, focusing on dynamic risk factors may likewise be the most practical way to reduce risk among MAPs. However, it is clear that further research is needed on this population. Self-regulation, empathy, cognitive distortions and adult attachments are all stable factors linked through empirical research and/or theory to sexual offending behaviour. They are prominent examples of the kinds of social, cognitive and psychological deficits that can be associated with sexual offending and are the factors that will be measured in this study.

1.2 Key Relevant Etiological Theories

It could be assumed that convicted child sex offenders and MAPs have similar dysfunctions of behaviour and therefore, MAPs could potentially offend at some point in their life without any support/treatment. However, to find out more about initial offending it is crucial to understand the behaviours/characteristics of convicted child sex offenders. The various etiological and offence process models that have provided a description of the cognitive, behavioural, motivational and contextual factors that are associated with a sexual

offence (Ward et al., 1998), are described in more detail below; as well as the social implications (child) sex offenders experience. The relevant etiological theories will be discussed at first, followed by the relevant risk factor literature. Etiological theories and models have been developed in the child sexual offending literature which remain empirically supported today. Three theories of sexual offending that have gained relatively strong empirical support in terms of predicting risk and recidivism, classifying various offending pathways (e.g., approach and avoidant) and providing insight into the factors that should be targeted in the treatment for child sex offenders are: The Self-Regulation Model (SRM) (Ward & Hudson, 1998) derived from the self-regulation theory of goal directed behaviour (Baumeister & Heatheron, 1996), the Multimodal Self-Regulation Theory of Sexual Offending (MSRT) (Boer, 2016) and Attachment Theory (Bowlby, 1969; Boer, 2016; Ward et al., 1995, 1996). These theories are described in more detail below in order to provide necessary context regarding sex offenders and the various offence-related characteristics they possess.

1.2.1 The Self-Regulation Model (SRM)

The Self-Regulation Model (SRM) (Ward & Hudson, 1998) has offered promise in the advancement of sex offender classification and treatment. Empirical validation and support for this model has been identified across various studies (Bickley & Beech, 2002; Chu et al., 2015; Kingston et al., 2014; Webster, 2005). The SRM is an offence and relapse process that was initially developed to account for the limitations evident with the Relapse Prevention Model first proposed by Martlatt and George (1984). Relapse prevention focuses on the maintenance phase of the habit change process that is designed to teach individuals how to anticipate and cope with the problem of relapse (Marlatt & George, 1984). The Relapse Prevention Model combines both behavioural and cognitive components and has been applied to the treatment of numerous psychological problems, such as; substance abuse,

depression, sexual offending and schizophrenia (Witkiewitz & Marlatt, 2004). Pithers (1990) was the first to introduce this model to the treatment of sex offenders with a particular view that relapse is essentially caused by the inability to cope effectively in high-risk situations. Although this theory has contributed significantly to the treatment of sexual offenders (Ward & Hudson, 1998), the SRM has attempted to address its limitations.

The SRM describes four pathways of offending that stem from the evidence that sex offenders can be categorized as *approach* or *avoidant* goal offenders in relation to their desires and strategies towards offending (Ward & Hudson, 1996; 1998; 2000). The SRM has a high degree of support and has reliably identified sex offenders into one of the four pathways of offending (Bickley & Beech, 2002; Bickley & Beech, 2003; Chu et al., 2015; Kingston et al., 2014; Yates & Kingston, 2006).

The four pathways are described as:

- **Avoidant passive** – individuals are generally under-regulated; they inhibit the desire to sexually offend but lack the necessary coping skills to deal with their unwanted thoughts in appropriate ways.
- **Avoidant active** – show signs of miss-regulation, where their direct attempts to control their urges often leads to ineffective or counterproductive strategies (i.e., substance abuse).
- **Approach automatic** – show signs of under-regulation as they have poorly planned behaviour as well as a high degree of impulsivity.
- **Approach explicit** – generally have effective regulation but portray the desire to sexually offend and therefore apply no strategies to avoid offending, they typically use careful planning and grooming strategies to execute their offence/s.

The four pathways result from variations along two dimensions, goal-related behaviour (i.e., approach or avoidance), and differing self-regulation abilities. Approach oriented goals involve reaching or maintaining desired outcomes, and are characterised by approach behaviour. Avoidant goals focus on avoiding or eliminating undesired outcomes and thus involve avoidant behaviour. Baumeister and Heatherton (1996) have described self-regulation as a controlled process that attempts to override impulses, they suggest that that the problem is not that people have impulses but that they act on impulses. Self-regulation is complex and can therefore break down in many different ways which makes it difficult to identify a single cause that explains self-regulatory failure (Baumeister & Heatherton, 1996); hence the formation of the various pathways.

Self-regulation is very important in the treatment of sexual offending; goals are the key constructs in theories of self-regulation and function that guide the planning, implementation and evaluation of behaviour. The desire to engage in deviant sexual activity results in the establishment of an offense-related goal (Ward & Hudson, 1998), and it is at this point the offender considers acceptability of his or her desires and what they should do about it (Bickley & Beech, 2002). Ward and Hudson's (1998) research suggests that some sexual offences are associated with self-regulatory failure, and others with careful and systematic planning. The major concern with approach goal-oriented individuals is not with their self-regulation but rather with their goal-setting (Ward & Hudson, 1998). These individuals are able to set goals as they generally have effective regulation and they strive to achieve their goals; however, the goals themselves are problematic. The avoidant goal-oriented individuals are still at-risk of offending but it could be assumed that they pose a lower risk given their overall goal is not to offend. This was supported by Yates and Kingston's (2006) study where they examined the differences between the pathways described in the SRM with respect to *static* (i.e., remaining constant over time) and *dynamic*

(i.e., subject to change) risks. They concluded that offenders following either one of the approach pathways presented with a significantly higher static risk to re-offend than those following the avoidant pathways, and that approach offenders were more criminalised (i.e., higher levels of impulsivity and more sexually deviant) than the avoidant offenders (Yates & Kingston, 2006). A study by Bickey and Beech (2002) examined 87 child sex offenders and found that approach goal offenders reported much higher levels of cognitive distortions (i.e., internal processes, including the justifications, perceptions, and judgements used by the sex offender to rationalize their child molestation behaviour (Abel et al., 1989)) regarding the appropriateness of sexual contact with children, demonstrated higher levels of emotional congruence with children, they were more likely to report greater levels of distortion regarding the impact of their abuse on their victims, compared to the avoidant offenders. Overall, approach-automatic individuals display behaviour that is impulsive, tending to respond to cues in their environment (automatic), while approach-explicit individuals carefully plan their behaviour to reach their desired goal (i.e., reoffending or initial offending). Although this model shows that some individuals may have intact self-regulation (approach goals) and still offend, those who are avoidant goal oriented do not have the necessary skills to avoid offending. Yates et al. (2012) evaluated the validity of the SRM with a sample of 275 adult male sex offenders. From their sample, 19.6% were classified as having followed an avoidant-passive offence pathway; 16.4% followed an avoidant-active pathway; 27.3% followed an approach-automatic pathway, and 36.7% followed an approach-explicit offence pathway. Overall, from this study, the three offence pathways where individuals suffer some kind of self-regulatory failure (i.e., avoidant-passive, avoidant-active and approach-automatic) make up 63.3% of that particular sample. This provides encouraging evidence that self-regulatory development may be one of the crucial factors that should be addressed to prevent initial offending.

1.2.2 The Multimodal Self-Regulation Theory of Sexual Offending (MSRT)

The Multimodal Self-Regulation Theory of Sexual Offending (MSRT) is a more recent theory proposed by Stinson et al. (cited in Boer, 2017). This MSRT has received less attention in comparison to the SRM, however it similarly integrates the idea that those who engage in problematic sexual behaviour do so as a result of their self-regulatory deficits. Sex offenders represent a highly heterogeneous population, they have different types of offending, different histories, personalities, risks and needs (Stinson et al. cited in Boer, 2017). The model proposes that although there are various ways in which individual sex offenders can present (e.g., offence characteristics, psychopathology and personality traits), they all link back to manifestations of self-regulatory dysfunctions. Stinson et al. (cited in Boer, 2017) stated that experiences of dysregulation are common however, individuals who are unable to cope with or modulate such experiences are described as having self-regulatory deficits. The model emphasizes the importance of functional coping styles and/or strategies to be the crucial factor that determines intact self-regulation and dysregulation. Coping styles are related to an individual's self-regulation as these determine how they cope in difficult situations and whether they can deal with them in an adaptive manner. Three coping styles described throughout the literature are task-focused, emotional-focused and avoidance-focused (Endler & Parker, 1990; Marshall et al., 2000). Task-focused coping is adaptive and involves strategies that directly address the problem (i.e., outlining priorities, determining a course of action, and following it). In contrast, the emotion-focused and avoidance-focused coping strategies are maladaptive. Emotion-focused individuals tend to get caught up in their emotions and become overwhelmed in worrying about what to do. Those who are avoidant-focused often ignore the problem at hand, which in turn can prolong their stress (Marshall et al., 1999). Marshall et al. (1999) found that sex offenders not only have maladaptive coping strategies but more specifically, that they typically adopt an 'emotion-focused' coping

strategy when faced with stress or difficult situations. They become overwhelmed and cannot manage the intensity of their distressing emotions. These strategies have been described as an attempt to regulate emotional distress by daydreaming or fantasizing (e.g., deviant sexual fantasies) through an exaggerated self-preoccupation (Marshall et al., 1999). In addition, it is a common finding within the sexual offender literature that men who sexually offend do so to fulfil sexual needs (Cortoni & Marshall, 2001). Cortoni and Marshall (2001) compared rapists (i.e., sexual offences against women or men, not children), child sex offenders and violent nonsexual offenders and examined how likely they were to use sexually related activities as a coping strategy to alleviate negative emotional states. Their results revealed that both rapists and child sex offenders reported a greater use of sexual activities (e.g., masturbation, pornography, and sadomasochistic (giving or receiving pleasure from acts involving pain or humiliation) themes than did violent offenders, when they were in a difficult, stressful, or upsetting situation. These findings are problematic as this type of deviant fantasizing could potentially lead to offending behaviour (Jones & Wilson, 2009).

The SRM and MRST show the importance of focusing on self-regulatory behaviours and coping strategies when focusing on the treatment of child sex offenders. Although these models are derived from evidence based on convicted offenders, when considering treatment aiming to prevent initial offending it is important to ascertain whether these same factors are evident in MAPs to inform the prevention of initial offending.

1.2.3 Attachment Theory

Attachment theory was originally developed by Bowlby (1969). The theory suggests that it is crucial for personal development, to obtain a strong emotional and physical attachment to at least one primary caregiver. Attachments are presumed to lead to positive emotional states such as joy and security but can also lead to negative emotional states such

as anger or sadness, when attachments are threatened or lost (Ward et al., 1995). The literature suggests that sex offenders often display one of the three insecure attachment styles (anxious/ambivalent, avoidant I, and avoidant II) and that each of these relate to different intimacy deficits and relationship problems; summarised below based on Ward et al., 1995:

Anxious/ambivalent attached individuals tend to fall in love easily and consistently seek the approval of others so seek a partner they can control, which in the case of sexual offenders could be a child. Their inability to satisfy their intimacy needs in adult relationships can make them emotionally dependent, which could obscure their perceptions of the child's behaviour and lead them to interpret a child's desire for attention as indications of sexual desire.

Avoidant I is the fearful type of avoidant attachment. These individuals are scared to get close to others as they fear rejection from romantic partners. The fear of rejection leads them to use sex as a way of getting close to others; they tend to have little empathy towards their victims and are more likely to engage in offences such as exhibitionism, voyeurism and child molestation.

Avoidant II individuals seek independence and are essentially characterised by hostility; they wish to remain distant from others. They are dismissive of the value of close relationships and some may be so hostile that they develop sadistic tendencies (i.e., pleasure from inflicting pain, suffering or humiliation on others) and therefore, fail to achieve any intimacy within adult relationships.

These types of avoidant attachments in early life can lead to various relationship issues in adulthood and tend to develop when the early caregiver is detached, lacks emotion and is typically unresponsive (Ward et al., 1996). Marshall et al. (1993) argued that insecure attachment bonds can result in a failure to learn interpersonal skills and self-confidence necessary to achieve intimacy with other adults; a deficit which is commonly found within sex offenders. Attachment theory, intimacy deficits and the experience of loneliness have

been closely integrated within the literature, as poor-quality attachments are likely to provide the basis for loneliness as an adult and poor intimacy in relationships (Marshall & Marshall, 2010). Marshall and Marshall (2010) summarized the role of attachments, intimacy and loneliness in the etiology of sexual offending and supported Marshall's (1993) findings by emphasizing that these deficits (i.e., low self-confidence, poor social skills and lack of empathy) make relationships more difficult. This typically leads to development of inappropriate social messages that objectify others by portraying people as instruments of sexual pleasure. This encourages sex offender's perception that they have control over others and deny the need to develop their social skills to improve their compassion for others. It is of note that the MSRT, discussed above, also highlights the importance of secure attachment for a child's development, suggesting that socialization and interaction with early caregivers as well as peers provides an opportunity for infants and children to learn the necessary self-regulatory strategies to cope with internal distress and tension (Stinson, Becker & McVay cited in Boer, 2017). Marshall and Marshall (cited in Boer, 2017) have subsequently revised Attachment Theory by narrowing their focus specifically to child sexual abuse committed by adult men, and expanded the model to explore relationship attachments at the crucial life-stage developments (e.g., infancy, childhood, adolescence, early adulthood, middle age and old age). The core of this revised theory is that early failure to acquire a secure attachment, or later disruptions in established romantic relationships can lead to a predisposition towards sexually abusing children. This suggests that it is not only important to understand the attachment styles child sex offenders had with their caregivers but also to examine their subsequent social relationships and how they relate and interact with other adults. If attachment bonds are insecure in childhood, they may grow to fear, rather than desire, intimacy with adults as they have not obtained the necessary skills to establish close adult relationships (Ward et al., 1995). Generally, relationship disruptions can cause distress and,

in an attempt to reduce this stress many men typically seek sex (Davis et al., 2004). If these individuals are rejected in social settings, they may seek close relationships with children as they are typically seen as less judgemental and less threatening. Wood and Riggs' (2008) study explored predictors of child molestation (i.e., adult attachment, cognitive distortions and empathy) and found that sex offenders experience high levels of anxiety in adult attachments as they tend to possess negative internal working models of self. They stated that a relational strategy characterised to attachment anxiety is similar to a child sex offender's characteristic fear of rejection from adult romantic partners and their preference for interacting with children (Wood & Riggs, 2008). Wood and Riggs' (2008) results also showed that attachment anxiety, in the context of romantic relationships, was a strong predictor of child sex offender status, therefore concluding that attachment theory may be useful in the conceptualisation and treatment of child sex offenders.

1.3 Relevant Risk Factor Literature

1.3.1 Empathy

A common relation with insecure attachments, which is supported by findings in the literature, is that many sex offenders lack empathy (Bickley & Beech, 2002; Fisher et al., 1999; Hanson & Scott, 1995; Marshall et al., 2001). Empathy is a complex notion that has been said to underlie all aspects of behaviour (Hoffman, 1987). In relation to sex offenders, the concept of empathy has acquired diverse meanings however, Hanson (2003) stated that empathy deficits are primarily concerned about offenders' lack of compassion or sympathy for their victims. Further, a common theme among sex offenders is that they show higher empathy deficits with regard to their victim than to anyone else (Marshall et al., 1995; Marshall et al., 2001). Hanson and Scott (1995) noted that many sexual offenders are callous towards their victims and often claim that their victims were not harmed by the abuse and

even enjoyed it, despite the contradictory evidence. Social and emotional deficits characterized by insecure attachments and lack of empathy can essentially guide sex offenders to committing their offence/s. On this basis, most sex offender treatment programmes have included an empathy-enhancing component (Marshall et al., 2001). However, there is contradictory evidence in the literature as to whether or not empathy is a crucial component to sex offender treatment. Hanson and Morton-Bourgon's (2005) meta-analysis on characteristics of persistent sexual offenders found that empathy had little or no relationship with sexual or violent recidivism. Prevention research has found that victim empathy has improved outcomes and it has helped sex offenders manage their behaviour, therefore proving to be a crucial component in preventative treatment (Levenson et al., 2009; Levenson & Prescott, 2009; Wakeling et al., 2005). Barnett and Mann (2013) assessed three meta-analytic studies with mixed reviews about victim empathy being an essential component in sex offender treatments. They concluded that the current evidence readily available does not provide a definitive answer on whether victim empathy intervention is rehabilitative. "Victim empathy" has been defined as a cognitive and emotional understanding by a sexual offender of the experience of the victim of his or her sexual offence, resulting in a compassionate and respectful emotional response to that person (Barnett and Mann 2013). With this being said, various studies have found *generalised* empathy deficits to be present in child sex offenders (Marshall et al., 1993; Marshall & Maric, 1996) therefore, encouraging a generalised empathy component, rather than victim empathy, to be considered in preventative treatments. Marshall et al. (2001) identified that child sex offenders show more cognitive empathy deficits than nonsexual offenders and display greater cognitive distortions about sex between adults and children than did the other subjects. Marshall et al. (1995) also suggests that with practice, sex offenders are able to empathically dissociate themselves from the distress induced by their offences, and therefore

show a lack empathy for their victims and/or others. However, these mixed results offer little clarity about whether or not child sex offenders have empathetic deficits towards their victims (or class of victims) or if it is a generalised lack of empathy for others. Marshall et al. (1994) examined generalised empathy in incarcerated child sex offenders and child sex offenders attending a community-based clinic. They found that community-based offenders showed greater deficits in general empathy compared to the incarcerated offenders. It was expected that the incarcerated individuals would have worse offense histories than the community-based offenders and, accordingly, expect them to be less empathic (Marshall et al., 1994). They concluded that specific targets should be evaluated to guide the treatment of child sex offenders, such as; children generally, victims of child sexual abuse, or simply the offenders own victim. The contradictory findings again, offer little clarity on whether empathy is a crucial component in child sex offender treatment. However, it could be assumed that MAPs lack generalised empathy, as they do not have victims, as of yet, and this lack of empathy could cloud their judgement and prevent them from considering the consequences of their offending. Measuring generalised empathy in MAPs to prevent initial offending would therefore be worthwhile implementing.

1.3.2 Cognitive Distortions

According to the cognitive perspective (Hanson and Scott, 1995; Johnston and Ward, 1996; Ward et al., 1997), all behaviour – including sexual offending behaviour – is influenced by attitudes, beliefs, cognitive processes and information processing. Cognitive behavioural processes in general have received attention as playing a major role in precipitating and maintaining sexual offending behaviour (Blumenthal et al., 1999). Cognitive distortions refer to maladaptive beliefs, attitudes and problematic thinking styles that particular individuals adopt (Ward, 2000). Some common cognitive distortions amongst sexual offenders are blaming the victim, justifying their offending or even excusing

(normalising) their sexually abusive behaviour (Ward, 2000). Ward and Keenan (1999) imply that these are not typically consciously articulated however, they facilitate the processing of offence-related information. Much of the empirical and theoretical work focused on cognitive distortions has assessed cognitive content by examining the meaning of offender's beliefs and attitudes (Abel et al., 1989). It has been noted that child sex offenders have beliefs that legitimatise sexual involvement with children; they see their victims in sexual terms (i.e., wanting sex and not being harmed by sexual contact) and do not hold themselves accountable (Ward & Keenan, 1999). It has also been identified that sex offenders who follow approach as opposed to avoidant goals, report significantly higher levels of cognitive distortions and more specifically, possess distorted views about the impact their abuse had on their victims (Bickley & Beech, 2002; Bickley & Beech, 2003). Bickley and Beech (2002) suggested that avoidant offenders are situational offenders who offend during periods of stress (e.g., when an appropriate partner is unavailable), and that they are less likely to hold general distorted beliefs about the appropriateness of sexual contact with children. Blumenthal et al., (1999) identified that overall, child sexual offenders endorsed significantly more cognitive distortions associated with sex and children than a group of sex offenders who offended against adults. A study by Fisher et al., (1999) compared a child sex offender group with a sample of non-offenders (newly recruited male prison officers) and found that only 'high-deviancy' (defined below) and extrafamilial offenders scored significantly higher than the non-offenders. Levels of deviancy have been discussed in Beech (1998), who classified high-deviancy as those individuals from his sex offender sample who had high levels of pro-offending attitudes and social inadequacy. Beech's (1998) low-deviancy sub-sample, in contrast, had low levels of pro-offending attitudes and were only somewhat socially inadequate. In the Fisher et al., (1999) study, the low-deviancy offenders did not differ significantly to non-offenders, and the authors suggested this meant that either they did not

hold such beliefs or that they were more aware that such beliefs were unacceptable and did not admit to them. Abel et al. (1989) suggested that cognitive distortions held by child sex offenders allow them to justify both their past offending and future offences because they eliminate their offence-related anxiety and guilt. Ward and Casey (2010) proposed that cognitive distortions can also be influenced by patterns and routines which can alter individuals' beliefs by allowing them to be shaped by social environments (e.g., beliefs about women and/or children). They applied cognitive development to the extended mind theory (EMT) which represents the view that humans capacity for learning and problem solving extends beyond biological boundaries and that individuals solve cognitive tasks through both internal and external elements (Ward & Casey, 2010). More specifically, they stated that recognition of the extended nature of sexual offenders cognitive functioning is necessary when designing intervention programs. Overall, it has become evident that distorted thinking is central to sexual offending as sex offenders tend to hold attitudes and beliefs which minimise and justify their offending behaviour (Blumenthal et al., 1999).

1.4 Relevant literature on the MAPS population

There has been recent focus on the population of MAPs in the child sex offender literature. Levine and Dandamudi (2016) encouraged the idea of primary prevention as a means to intervene before a person (MAP) becomes an offender. To be able to intervene, an individual must present with atypical sexual interests by seeking help, as help-seeking is the pathway to intervention, treatment and recovery (Gulliver et al., 2012). However, help-seeking is not as simple as coming out and asking for help, especially for a MAP. Levenson et al. (2017) produced a very interesting study that explored the barriers to help-seeking for child sex offenders. They stated that people with potentially harmful sexual interests towards minors are unlikely to seek or receive treatment *before* a sexual offence is committed. Their results showed that shame and secrecy resulting from the stigma associated with their sexual

interests often prevented MAPs from seeking professional help before they offended; only a small sample of participants (approximately 20%) tried to talk to anyone about their sexual preferences prior to their arrest (Levenson et al., 2017). Better understanding needs to be developed within the population of MAPs in an attempt to reduce these barriers that prevent individuals from seeking help before offending. By endorsing a better perception of these barriers and MAPs treatment needs, this would assist with improving their quality of life, reduce victimization and to help create more informative treatments to reduce initial offending. In addition, Lasher and Stinson (2017) identified five major areas that need further attention with regard to implementing preventative outreach (i.e., help-seeking) and treatment programs (i.e., how to expand or reframe current preventative educational programs; implementation of these programs; treatment approaches for pedophilic interests; and ethical concerns relevant to preventative psychosocial interventions). They suggested that in order to effectively implement treatment programmes, therapy for potential offenders (MAPs) should be considered as active child protection, rather than perpetrator assistance; this could assist with promoting and encouraging MAPs to seek treatment and help reduce stigmatization.

In an attempt to better understand the MAP population, Wurtele et al. (2018) conducted an online self-report survey that identified the factors associated with sexual interest in children within a sample of adult men. They examined different types of childhood adversities (e.g., witnessing parental violence, sexual, physical and emotional abuse), atypical childhood experiences, and participants' self-reported likelihood of engaging in a variety of sexual behaviours and how these integrated with sexual interest towards children. They found that early masturbation and current heightened sexual interests (i.e., willingness to engage in atypical sexual behaviour) were significant mediators of the relationship between experiences of childhood sexual abuse and sexual interests towards children (Wurtele et al., 2018). This study reported some interesting findings on risky sexual behaviours however, further review

on the characteristics (or stable traits) that are evident within MAPs should be addressed within this population to encourage professional assistance, as these tend to remain stable across time; without intervention. Furthermore, Cohen et al. (2018) compared self-identified MAPs who have (non-actors) and have not (actors) successfully refrained from sexual activity with children. Their results revealed that MAP actors were significantly older than non-actors, they had longer duration of pedophilic attraction, more antisocial traits, greater attraction to boys, greater difficulty controlling their attraction, and more positive attitudes towards adult-child sexual activity (Cohen et al., 2018). Cohen et al. (2018) concluded that further studies are needed to address the potential risk factors associated with child sexual offending and it is this that has set the foundations for the current study. More generally, research has begun to recognise the importance of focusing on preventative treatment as a means of preventing initial offending. Hanson and Morton-Bourgon (2005) suggested that identifying characteristics that are present in not only repeat offenders but first-time offenders is crucial to understanding this highly troubling behaviour (i.e., child sexual offending). There is a repetitive pattern evident within the recent studies regarding the MAP population (Cohen et al., 2018, Levenson et al., 2017 & Wurtele et al., 2018), that suggest there needs to be a better focus on factors (i.e., potential risk factors) that contribute to first-time offences to better prevent initial offending, improve the quality of life for MAPs (i.e., by encouraging treatment) and to reduce the number of potential victims affected by this abuse.

1.5 Current Study

The aim of the current study is to inform the prevention of child sexual abuse. It is an exploratory study that will compare a sample of MAPs (Group 1) with a group of convicted child sex offenders (Group 2) to identify similarities and differences between them (a control group (Group 3) will also be used for comparison). For the purpose of this study a child will

be defined as an individual who is under the age of 16 years, consistent with New Zealand law.

As noted previously, it is apparent that living in most communities are individuals who experience a sexual interest in children, but who are distressed by this and are motivated to seek help (Beier, 2016). When it comes to trying to provide this help, however, an issue is that the vast majority of the evidence base for reducing risk is based on research with convicted samples. If MAPs are motivated to seek help it is assumed that they would self-identify that they may be at potential risk of offending and seek treatment and/or support (e.g., from websites, counsellors, clinicians etc.). However, social influences and negative social stigma surrounding these sexual interests may prevent individuals from coming forward and getting the help they need and want, leaving them untreated and potentially over time, be at an increased risk of offending (Jahnke & Hoyer, 2013; Levenson et al., 2017;). Jones and Wilson (2009) explained that social acceptability is a contributing factor that helps to prevent behaviour that is deemed inappropriate, unacceptable and damaging from occurring. However, the fact that child sexual abuse continues to occur across communities indicates that social influences, the concept of acceptability, and fear of being judged are not enough to prevent offending, therefore, individuals in need should be enabled and encouraged to seek help. It is evident that this population is living within our communities and that we need to begin to understand more about this population of MAPs and their treatment needs at this crucial stage; including how to address and cease the development of dysfunctional behaviours, and essentially prevent offending.

This is an exploratory study that seeks to add to the small but growing literature exploring this population as a means of reducing initial offending. In consideration of the theories discussed above (SRM, MRST and Attachment Theory) and alongside the literature regarding dynamic risk factors for sexual offenders (e.g., sexual attitudes and beliefs,

emotional functioning and interpersonal competency) the comparative variables for this study will be self-regulation capacity, emotional functioning (empathy), social inadequacy (adult attachments styles) and pro-offending attitudes (cognitive distortions). As mentioned previously, the evidence for these theories is currently based on convicted child sex offenders, however it is assumed that the sample of MAPs will show similar deficits due to being at an earlier stage of potentially the same developmental course of behaviour. The MAPs sample (Group 1) and the convicted child sex offenders (Group 2) represent the same population sampled at different stages in their life course trajectory (i.e., that Group 1 are at risk of becoming Group 2 at some point in the future – without intervention/treatment).

The hypotheses for this study are:

H1: Group 1 and Group 2 will show similar levels of the variables being assessed.

H2: Both Group 1 and 2 will differ from the control group (Group 3) on these variables.

Support for these hypotheses will provide a timely rationale for investment into developing treatments and other kinds of support for those who self-identify risk of child sexual offending. Without treatment/intervention it may be that MAPs would essentially pursue a similar pathway to that of a convicted offender and be at risk of committing their first contact offence at some point in the future.

2. Method

2.1 Participants and Recruitment

All participants were adult males aged 18 years or over and participated on a completely voluntary basis. The three subject groups will be discussed in more detail below and a summary of the eligibility criteria is presented in Table 1.

Group 1 (MAPs): Group 1 consisted of Minor-Attracted Persons (MAPs), which consisted adult of men (at least 18 years of age) who self-identified that they experience persistent sexual attraction towards children but who have not committed a *contact* sexual offence against a child. Although detected or undetected contact sexual offences were therefore exclusionary, it was decided *not* to exclude individuals who may have engaged in 'non-contact' sexual offences such as viewing child sexual abuse material. Given the challenges associated with Group 1 recruitment, the sensitive nature of the study (Group 1 inclusion criteria in particular), as well as the reliance on voluntary self-recruitment in the absence of personal gain (i.e., no incentives were used), we did not wish to overly limit the sample. It was also considered that excluding potential participants on the basis of ever having accessed material (though rightly prohibited) is in line with their self-identified sexual interested and has burgeoned in terms of availability in recent times due to the internet (Beech et al., 2008), may result in an unrealistically restricted sample and therefore limit the generalisability of findings. The rationale was therefore, to open the sample to a wider and more relevant group of potential participants; it is important to note that in no way was this to suggest that non-contact offending is any less serious or damaging to victims than contact offending.

Group 1 was recruited from amongst the general population via targeted online advertisements (Facebook, Twitter, Neighbourly.co.nz etc.). The advertisements contained an anonymous link and a QR scan code to enable participants to access the survey in their own time for completion and whilst ensuring their identity remained anonymous. WellStop (a community-based programme in New Zealand offering treatment services in relation to harmful sexual behaviour) also assisted with the recruitment of Group 1 participants. Clinicians at WellStop identified any new or current clients meeting Group 1 criteria for this study and provided an information sheet to these individuals, which invited their voluntary

anonymous participation, and contained the aforementioned anonymous link and QR scan code.

Group 2: Group 2 consisted of adult males (aged at least 18 years old) who had been convicted of a child sexual offence. Group 2 participants were recruited through the New Zealand Department of Corrections and were incarcerated at the time of data collection across various prison units in Christchurch, New Zealand. Given the focus of the current research was on informing the prevention of initial offending, only those on their first sentence for sexual offending were eligible (i.e., repeat sexual offenders were excluded), to ensure that group comparisons were not confounded by the potentially greater levels of dysfunction of repeat offenders (Hanson & Morton-Bourgon, 2005). Also to minimise potential confounds, only participants who had not yet commenced treatment for their offending were eligible (since sexual offence-related treatment would likely be aimed at reducing the same or similar factors that were under measure in this study).

To recruit Group 2 participants, Department of Corrections staff generated a list of those meeting eligibility criteria which was then provided to the researchers. Residential Managers (and staff) from the appropriate units then handed out information sheets for the potential participants to read and decide if they wanted to participate. Those who chose to participate then met with the researchers in their units and were offered the chance to ask any questions before completing the questionnaire.

Group 3: Group 3 was a general population comparison group containing adult males at least 18 years of age, who neither experience sexual interest in children nor have been convicted of any criminal offence. This sample was recruited from the general population via online advertisements (Facebook, Twitter, Neighbourly.co.nz etc.) as well as advertisements posted on noticeboards at the University of Canterbury.

Table 1.
Summary of Eligibility Criteria for the Three Subject Groups

Group	Definition	Inclusion Criteria	Exclusion Criteria
Group 1	Men who self-identified that they experience persistent sexual attraction towards children but who have not committed a *contact* sexual offence against a child.	• 18+ years • Male • Sexually interested in children (under 16 years)	• Convicted of a *contact* sexual offence against a child
Group 2	Incarcerated men who have been convicted of a contact child sexual offence	• 18+ years • Male	• Convicted of more than one sexual offence against a child
Group 3	Adult men sampled from the general population	• 18+ years • Male	• Committed an offence against a child • Has sexual interests/thoughts towards children • Been convicted of *any* criminal offence

2.2 Design

All three groups of participants completed a survey on an anonymous basis. The survey was made up of four psychometric tests (described in more detail below), carefully selected to assess critical domains of functioning based on theories regarding the etiology of sexually abusive behaviour and empirical factors linked with offending proclivity. There were four demographic questions at the start of each survey (current age, gender, ethnicity, and highest level of education), as well as a set of supplementary questions at the end of the survey for Groups 1 and 2; refer to Appendix 1. for the full questions (seven and five additional questions respectively, these questions weren't asked of Group 3 because of their inapplicability to this general population sample). These questions related to: the onset,

frequency and duration of their sexual interests regarding children; whether or not they had sought any treatment for their sexual interests before they offended; if they did, who they sought help/support from; and if not, why they did not seek help. The additional two questions asked in Group 1's survey asked whether they thought they were at-risk of committing an offence against a child, and how much these sexual interests impact on their daily life (i.e., 'not at all' to 'quite a lot').

The data participants supplied could not be linked to their identity in any way, Groups 1 and 3 were completely anonymous to the researchers and Group 2 were guaranteed complete confidentiality and anonymity of their data as their identities were known to the researchers.

2.3 Measures

The surveys incorporated four psychometric tests that assess the domains of self-regulation, emotional functioning (empathy), social inadequacy (adult attachments) and pro-offending attitudes (cognitive distortions). The psychometric tests used are described below:

2.3.1 The Self-Regulation Questionnaire (SRQ; Miller & Brown, 1991) was used to measure self-regulation. This questionnaire is a 63-item instrument designed to measure the generalised ability to regulate behaviour so as to achieve desired future outcomes, formulated by Miller and Brown (1991). Respondents are presented with a series of statements such as; "My behaviour is not that different from other peoples" and "I have trouble making up my mind about things," and are asked to respond by selecting the answer that "best described how they are". Responses are rated on a 5-point scale ranging from 'strongly disagree' to 'strongly agree'. The SRQ is scored by adding up their total score; those who score less than #213 are suggested to have have low (impaired) self-regulation, scores between 214-238

show an intermediate self-regulation capacity and scores above #239 reveal a high (intact) self-regulation capacity. This SRQ described a seven step model that explains where self-regulation may falter, and therefore cause a deficit in self-regulatory capacity (i.e., *receiving* relevant information, *evaluating* the information and comparing it to norms, *triggering* change, *searching* for options, *formulating* a plan, *implementing* the plan, and *assessing* the plans effectiveness. This current study will not address the interpretation of these subscales and will focus simply on whether or not self-regulation is impaired or intact across the groups as this detailed analysis is not necessary for this particular study.

2.3.2 Empathy Quotient (EQ; Baron-Cohen & Wheelwright, 2004) served as the measure of empathy. The EQ is a self-report measure containing 40 empathy items, and 20 filler items included to distract the participant from a relentless focus on empathy (Baron-Cohen & Wheelwright, 2004). Responses are given on a 4-point scale ranging from 'strongly agree' to 'strongly disagree'. Respondents are asked to rate how each statement best applies to them by choosing the most appropriate answer to a range of statements including; "It is hard for me to see why some things upset people so much" and "I find it hard to know what to do in a social situation". Scores were calculated and interpreted on a scale ranging from "lower than average" to "very high ability" in terms of empathy. To calculate respondents scores, the 40 empathy items score either 1 point if the respondent records the empathic behaviour mildly (e.g., slightly agree, slightly disagree) and 2 points if the respondent records the behaviours strongly (e.g., strongly agree, strongly disagree). To interpret respondent's scores for the EQ, the following scale is used:

0-32 - lower than average ability to understand how other people feel and responding appropriately.

33-52 – average ability to understand how other people feel and responding appropriately. You know how to treat people with care and sensitivity.

53-63 – above average ability to understand how other people feel and responding appropriately. You know how to treat people with care and sensitivity.

64-80 – very high ability to understand how other people feel and responding appropriately. You know how to treat people with care and sensitivity.

2.3.3 Relationship Scales Questionnaire (RSQ; Griffin & Bartholomew, 1994) measures respondents' social inadequacy through their adult attachment styles. This questionnaire contains 30 short statements (e.g., "It is very important for me to feel independent") that assess adult attachment style and are scored to obtain measures that relate to various attachment styles. Respondents rate the extent to which each statement best describes their characteristic style in their close relationships, and the attachment styles are separated into sub-scales known as secure, fearful, preoccupied and dismissing, each question is rated on a scale of 1 (not like me at all) to 5 (very much like me). The preoccupied and fearful sub-scales are comprised of four items each, whereas the other two contain five items. The RSQ is one of the most widely used psychometric scales in adult attachment (Guedeny, Fermanian & Bifulco, 2010).

2.3.4 MOLEST Scale (MOLEST; Bumby, 1996) was used to measure participants pro-offending attitudes. The scale contains 38-items that specifically measure the cognitive distortions of men who sexually assault children. Items are scored on a 4-point Likert scale from strongly agree to strongly disagree. Participants are presented with a series of statements, such as "I believe that sex with children can make the child feel closer to adults" and are asked to choose the number that indicates about how they truly feel about the

statement. The MOLEST scale has satisfactorily distinguished child molesters from rapists and control inmates, and has been useful in measuring treatment progress in child sex offenders (Arkowits & Vess, 2003). Although this scale is usually used for known child sex offenders to measure progress from treatment, it will indicate whether the "non-offenders" in group 1 show similar distortions to those who have already offended (group 2). It is designed a clinical tool, to identify ways in which offenders justify or excuse their behaviour, so it helps with some specific aspects of cognitive restructuring (Bumby, 1996). Responses are summed to yield a total scale score, with higher scores indicating higher levels of cognitive distortions to justify, minimise, or rationalise their (offending) behaviour (Bumby, 1996).

2.4 Procedure

All participants completed the same questionnaire that consisted of the four psychometric tests listed above, six demographic questions and the additional questions mentioned previously for Groups 1 and 2. All participants were offered the chance to be sent a summary of the results – Group 2 could request their copy simply by ticking a box at the beginning of the survey (researchers recorded whether or not participants from Group 2 wanted a copy of the results, their PRN number, supplied on the list provided by Corrections, and postal details were noted in a password protected spreadsheet) and Groups 1 and 3 were provided with an email address to contact. None of the participants were asked to provide any identifying information on any part of the questionnaire and ticked a box as consent that they wish to participate in the study. Groups 1 and 3 completed the questionnaire in an online format however, this was not practical for group 2 so they were provided with a hard copy of the questionnaire. Completing the survey was expected to take around 25 minutes. Recruitment for Groups 1 and 3 was repeatedly advertised on various online sites (for a duration of approximately seven months), during this time various appointments were scheduled at Rolleston and Christchurch Men's Prison to meet with the participants and

complete the survey either individually or in small groups (depending on the arrangements made with the corrections officers).

Group 3 participants were offered a prize draw incentive to show an appreciation of their time, they were asked to provide an email address so they could be informed if they had won (the email address was only used for the purpose of the incentive and was not linked to the participants data in any way). A decision was made not to offer an incentive to Group 1 participants to decrease the chances of people participating for the purpose of gaining the incentive and to increase the chances of genuine responses. It was not possible to offer any incentive to the prisoners taking part in this research for Group 2.

2.5 Planned analyses

A three-group comparative, cross-sectional design will be used to compare the similarities and differences within the three groups across the four psychometric variables. Firstly, participants will be coded into numeric group numbers (e.g., 1, 2 and 3) and as individuals (e.g., 101, 102; 201, 202; and 301, 302) so that group comparisons can be better interpreted and individual item observations can be performed. Descriptive analyses will be computed to compare the means and, standard deviations or percentage proportions of the demographic variables (age, ethnicity, and educational attainment). To test whether the differences between ages was significant, an analysis of variance (one-way ANOVA) and post hoc comparisons will be computed.

In order to test H1 (i.e., Group 1 and Group 2 will show similar levels of the variables being assessed), a one-way ANOVA will be performed to compare differences between the group means and the amount of variation between the groups by utilising the F distribution. Effect sizes will be established using eta squared (η^2) so the difference between the groups can be quantified (i.e., how much the independent variable (Group 1, 2 and/or 3) has affected

the dependent variables, i.e., empathy, cognitive distortions, self-regulation and/or attachment style) (Coe, 2002). Eta squared, rather than partial eta squared, will be reported with the ANOVA statistics to ensure more precise interpretations in reference to the benchmarks that Cohen (1988) defines (e.g., small $\eta^2 = 0.2$; medium $\eta^2 = 0.5$; large $\eta^2 = 0.8$). Lakens (2013) suggests that when reporting effect sizes for ANOVA eta squared should be used instead of, or in addition to, partial eta squared. Partial eta squared will therefore still be computed and represented in a table for familiarity (Table. 5), and to allow these effects to be compared in future research. In addition, if a significant result is identified from the one-way ANOVA, a post hoc Tukey will be used to determine which groups differ from each other.

The RSQ will be interpreted slightly differently (H1) compared to the other tools, as the RSQ scale contains four subscales and would be better interpreted by employing a slightly different technique. Similarly, one-way ANOVA's will be computed for each of the four sub scales for each group to test for any significant differences. The subjects will then be classified into 'insecure' and 'secure' attachments (described in the results section below), insecure percentage proportions will also be described. A Pearson Chi-Square test will be run to determine the significance between the groups and if a significant difference is found, pairwise comparisons will be performed to identify where the difference between the groups lies.

To test H2 (i.e., Both Group 1 and 2 will differ from the control group (Group 3) on these variables) a Univariate Analysis of Variance (planned contrast) will be performed using coefficients equal to zero (e.g., 1, 1, -2); this specifies the group means and allows them to be compared by giving them opposite values (i.e., Group 1/2 against Group 3). Standard error (SEM) will be reported to compute confidence intervals (CI) to measure the precision of the population estimate; standard error bars will be represented in figures for each variable across the groups (CI's will be calculated and reported).

3. Results

3.1 Demographics

Means, standard deviations and percentage proportions of the demographic variables (e.g., age, ethnicity and education) and are presented in Table 1. Comparisons on gender were not applicable as all participants in the current study were male; as this was part of the inclusion criteria for all three groups. However, some female participants completed the survey in Groups 1 and 3 (two females in Group 1 and three females in Group 3), perhaps as a result of not thoroughly reading the eligibility criteria on the participant information sheet, and through a technical error in the online survey made whereby after selecting 'female' for the gender variable they were not redirected out of the survey. Due to the exploratory nature of this study, a decision was made to exclude the females' data. Despite the already small sample size it was considered vital that our comparisons were not confounded given that only males were recruited for Group 2 (recruited from men's prison sites); the rationale for this is elaborated in more detail in the discussion below. The mean age across the groups varied quite significantly but there was a good representation of diverse age groups in each group; as shown in the range columns of Table 2. Participants in Group 1 were noticeably younger (M = 28.7) than participants in Group 2 (M = 44.7) and 3 (M = 34.6); a one-way ANOVA revealed that this difference was also significant (p = .00), post hoc comparisons showed that Group 1 and 2 were significantly different (p = .00) and no significant difference between Group 1 and 3 (p = .40). Ethnic percentage proportions revealed that participants were mostly NZ European or Caucasian, with only a small sample of Māori participants overall (15%); see Table 2. A high percentage of participants from Groups 1 (45%) and Group 3 (67%) had gained some form of tertiary level education (Masters, Honours, Bachelor Degree); with a very small percentage having not completed any schooling overall (5% in Group 2).

However, a large percentage of Group 2 subjects had gained some high school credit (47%); showing that they obtained a moderate level of schooling over their lifetime; refer to Table 2.

Table 2.
Demographic Data Summary

	Group 1 N=21			**Group 2 N=19**			**Group 3 N=24**		
	M	SD	Range	*M*	SD	Range	*M*	SD	Range
Age	28.71[a]	10.43	18-61	44.67[a]	16.77	20-72	34.64[b]	16.77	22-77
Ethnicity		**%**			**%**			**%**	
British								4.17	
Caucasian		71.43			5.26			8.33	
Hispanic/English		4.76							
Māori					10.53			4.17	
NZ European		19.05			84.21			79.16	
Pakistani								4.17	
Latin		4.76							
Education		**%**			**%**			**%**	
Tertiary degree		45.00			10.53			66.66	
Some college credit		25.00			10.53				
Trade/apprenticeship					15.79			16.67	
Diploma		25.00			10.53			4.17	
High School		5.00			47.36			12.50	
No schooling					5.26				

Note: Subscripts show the significance between the groups, matching subscripts represent a statistically significant difference, $p < .05$

3.2 Missing data and exclusion of participants

Due to the sensitive nature of the study, the issue of missing data was expected (e.g. the information sheet provided to the participants also stated that: "It is asked that you answer every question in the order they appear but you **do not** have to answer every question if you do not want too"). Therefore, a decision was made to deal with the missing data by either prorating missing scores, if the participant had completed at least 50% of the psychometrics test in question, or excluding the participant if not. Missing data was minimal for the

demographic variables, however as indicated in Table 2, two participants from Group 3 did not provide their age, and one participant from Group 1 did not provide his level of education attainment. Upon analysis of the raw data, it was evident that two participants from Group 3 had completed less than half of the questionnaire overall, so these individual were excluded from all analyses, leaving a Group 3 sample size of N=24. Other participants who missed more than half the questions from a particular psychometric test were excluded only from that particular test. For this reason, there were some minor differences in group sample sizes across the different analyses; refer to Table 3. Likely explanations for this missing data are that participants may have missed pages in the booklet (Group 2) or skipped answers due to the prolonged time it took to complete the full questionnaire. Table 3. shows the differences in N totals after accounting for the missing data (pro-rating and exclusion of participants). The items addressed in the MOLEST scale are particularly sensitive as they address items that are specifically directed toward respondents thoughts towards children and sex, therefore it is not surprisingly that subjects wished to omit some of their responses.

Table 3.
N totals across the groups for each psychometric test (number of cases for which pro-rating was used in parentheses)

	Group 1 N=21	Group 2 N=19	Group 3 N=24	Total N=64
RSQ	21	18(1)	24(1)	63
EQ	21	19(1)	24	64
MOLEST	21(2)	19(2)	24(2)	64
SRQ	19*(2)	19	23*(1)	61

Note: * participants were excluded rather than pro-rated

3.3 Group comparisons

Group comparisons were performed to test the hypotheses of the study that report; (H1) Group 1 and Group 2 will show similar levels of the variables being assessed (empathy, cognitive distortions, self-regulation, and attachment style) and (H2) both Group 1 and 2 will differ from the control group (Group 3) on these variables. Table 4. displays the means and standard errors (SEM) for each of the four psychometric tests, across the three sample groups. Table 5. shows the ANOVA results discussed below and reports both eta squared and partial eta squared as measures of effect size (Lakens, 2013; Richardson, 2011). The rationale for this was proposed by Lakens (2013), who suggested that reporting eta-squared is best when interpreting ANOVA results as it is a generalised measure which can be better interpreted when comparing other effects in the literature (Lakens, 2013; Richardson, 2011). Due to this being one of the few studies that has addressed potential risk factors in a sample of MAPs, comparisons between effect sizes are not practical at this time, however, by reporting both measures of effect size this could encourage the data to be analysed beyond this study and be used for comparisons in future research.

3.3.1 Hypothesis 1 (H1): Group 1 indistinguishable from Group 2?

For the EQ, subjects scores were calculated by totalling their overall score from the answers they provided; as indicated by Baren-Cohen and Wheelwright's (2004) interpretation of this tool (N = 64). Subjects overall scores indicated that Group 2 were the least empathetic (M = 38.11, SEM = 3.06) and that Group 1 were slightly more empathic (M = 41.19, SEM = 3.64) than Group 2; however, both groups were still below the average score for adult men (42), as suggested in Baren-Cohen and Wheelwright (2004). In addition, Group 3's mean score was comparable to the normative average for adult men (M = 42.50, SEM = 2.26); see Table 4. A one-way ANOVA between the total EQ scores and the three subject groups was

Table 4.

Means and Standard Error for Each Group Across the Measured Variables

	Group 1		**Group 2**		**Group 3**	
	M	**SEM**	**M**	**SEM**	**M**	**SEM**
EQ	41.19	3.64	38.11	3.06	42.50	2.26
MOLEST	84.97	5.40	81.20	5.65	50.61	2.56
SRQ	212.95	5.26	225.47	5.16	229.04	3.87
RSQ						
Secure	3.06	0.14	3.00	0.10	3.17	0.09
Fearful	2.84	0.18	2.93	0.25	2.29	0.13
Preoccupied	3.02	0.14	2.89	0.14	2.72	0.09
Dismissing	2.40	0.18	2.57	0.22	1.76	0.15

performed. The results from this comparison were not significant and the effect size was small; $F(2,61) = .55$, $p = .58$, $\eta^2 = .13$, suggesting there was no difference between the three groups.. These findings were not supportive of H1.

For the MOLEST scale (N=64) participants' scores were totalled (as guided by Bumby's (1996) interpretation of the scale); higher scores represented a higher level of cognitive distortions regarding children and sex. On average, Group 1 showed the highest level of cognitive distortions ($M = 84.97$, SEM = 5.40) and Group 2 presented with similarly high levels of cognitive distortions ($M = 81.20$, SEM = 5.65). As expected, the mean score for Group 3 participants was much lower ($M = 50.61$, SEM = 2.57) than Group 1 and 2; see Table 4. A one-way ANOVA was performed between the three groups total scores on the

Table 5.

Analysis of Variance (ANOVA) Group Mean Comparisons

	F	df	*p*	η^2	η_p^2
EQ	0.55	63	.58	.13	.02
MOLEST	18.25	63	.00*	.61	.37
SRQ	3.19	60	.48*	.32	.10
RSQ					
Secure	0.64	62	.53	.14	.02
Fearful	3.62	62	.03*	.33	.11
Preoccupied	0.53	62	.19	.23	.05
Dismissing	5.9	62	.01*	.41	.16

*Note: *p* < .05

MOLEST scale. Results revealed that there was a significant difference between the three groups and a medium-large effect size, $F(2,63) = 18.25$, $p = .00$, $\eta^2 = .61$. Following the ANOVA results, A Tukey post hoc comparison was carried out to determine which of the three groups were different from each other. The results showed that there was a significant difference between Group 1 and 3, $p = .00$ and as predicted, there was no significant difference between Group 1 and 2, $p = .84$; which was supportive of H1.

The means computed for the SRQ revealed that Group 1 showed impaired self-regulation ($M = 212.95$, SEM = 22.91), compared to Group 2 (M = 225.47, SEM = 22.50) and 3 ($M = 229.04$, SEM = 18.55) who both scored in the middle quartiles, representing a moderate capacity of self-regulation (Miller & Brown, 1991). A one-way ANOVA between the three groups' mean SRQ scores yielded a significant result, $F(2,60) = 3.19$, $p = 0.48$, $\eta^2 = .32$; and a relatively small effect size. A post hoc Tukey comparison was computed and revealed a significant difference between Groups 1 and 3 ($p = .05$) and a significant difference was not found between Groups 1 and 2 ($p = .17$), which showed support for H1; in addition, there was no significant difference between Groups 2 and 3 ($p = .85$).

The participant scores for the RSQ revealed diversity across the groups in terms of their attachment styles. Generally, to calculate participants scores on the RSQ, mean scores would be computed for each prototype and then participants would be 'assigned' to the prototype that contains the highest mean score (Stein et al., 2002). On average, Group 3 had a slightly higher 'secure' rating (M = 3.17, SEM = 0.09) compared to the other two groups (Group 1, M = 3.06, SEM = 0.14; Group 2, M = 3.00, SEM = 0.10). A one-way ANOVA was performed between the three comparison groups and each individual RSQ subscale score. The analysis showed that there was a significant finding for both the 'fearful' ($F(2,61) = 3.62$, $p = .03$, $\eta^2 = .33$) and 'dismissing' ($F(2,61) = 5.90$, $p = .01$, $\eta^2 = .16$) prototypes. The remaining two subscales presented results that were not significant, 'secure'; $F(2,61) = .64$, $p = .53$, $\eta^2 = .14$, and 'preoccupied'; $F(2,61) = .53$, $p = .19$, $\eta^2 = .23$; refer to Figure 4. Figure 4. shows a clear depiction of the results listed above; there are larger differences between the three groups in the 'fearful' and 'dismissing' prototypes, and the similarities in the 'preoccupied' and 'secure' prototypes are evident.

For the purpose of the current study, the main finding we wanted to extract from the RSQ data was whether Group 1 (and Group 2) had insecure attachments in comparison to Group 3. Therefore, the data was pooled into two groups; if the subjects scored highest in one of the insecure categories (fearful, preoccupied or dismissing) they were classified 'insecure' (1) and if their highest score was in the 'secure' category then they were classified 'secure' (2). *Insecure* percentage proportions for each group were calculated; Group 1, 73.7%; Group 2, 83.3%; Group 3, 43.5%. A Pearson Chi Square analysis was computed between these two groups which revealed a significant result, $\chi^2 (2) = 8.638$, $p = .01$. Pairwise comparisons were then computed to determine where this significant difference lies. The results showed that no significant difference was found between Group 1 and 2, $\chi^2 (1) = 1.33$, $p = .25$. There was a significant different result between Groups 1 and 3; $\chi^2 (1) = 8.41$, $p = .00$. A pairwise

comparison was also computed between Groups 2 and 3 which yielded a non-significant result, χ^2 (1) = 2.97, p = .09. These findings were supportive of H1.

Hypothesis 2 (H2): Group 1 and 2 distinguishable from Group 3?

To gather support for H2, planned comparisons were computed as this compared the differences between two means. Group 1 and 2 were essentially pooled (i.e., combined) (Group 1/2) so that they could be directly compared with Group 3. As mentioned previously, coefficients were used to specify the group means (e.g., 1, 1, -2) to allow the comparisons between Group 1/2 and Group 3 to be performed; this method is referred to as a planned contrast (due to summarised findings, figures will be presented in order after the interpretation of the results).

A planned contrast was computed for the EQ scores and Group 1/2 against Group 3 which revealed that the linear component of this interaction was significant, p = .43. This was not supportive of H2. Figure 1. represents the overall EQ results, it shows the distribution of means and the standard error bars at the 95% confidence interval (Group 1, 95% CI [34.06, 48.32]; Group 2, 95% CI [33.01, 43.21]; Group 3, 95% CI [38.07, 46.93]).

Again, a planned contrast was computed for the MOLEST scale to compare Group 1/2 with Group 3. The results from this analysis revealed a statistically significant finding (p = .00) which supports H2. Figure 2. presents these results for the MOLEST scale; again, revealing the distribution of means and the standard error bars at the 95% confidence interval (Group 1, 95% CI [34.06, 48.32]; Group 2, 95% CI [33.01, 43.21]; Group 3, 95% CI [38.07, 46.93]).

A planned contrast analysis was computed for the SRQ scores (compared Group 1/2 with Group 3) and yielded a non-significant difference, p = .09. This finding did not support H2. Figure 3. presents the SRQ analyses and shows the distribution of means and the

standard error bars at the 95% confidence interval (Group 1, 95% CI [202.64, 223.26]; Group 2, 95% CI [215.36, 235.58]; Group 3, 95% CI [224.02, 234.06]). Again, this reveals no real evidence that Group 1/2 were statistically different from Group 3, which was not supportive of H2.

As mentioned previously, the main finding we wanted to extract from the RSQ data was whether Group 1 (and Group 2) had insecure attachments in comparison to Group 3. Therefore, a univariate analysis of variance was computed that compared Group 1/2 with Group 3 for the 'secure' prototype. This interaction was not significant, $p = .28$, implying that there was an even distribution of secure/insecure participants across the groups. Figure 4. shows the RSQ analyses (distribution of means and the standard error bars at the 95% confidence interval; Group 1, 95% CI [2.79, 3.33]; Group 2, 95% CI [2.80. 3.20]; Group 3, 95% CI [2.99, 3.35]). These results are not supportive of H2.

Out of interest, the same planned contrast was computed for the remaining three prototypes which revealed mixed results; significant findings were identified for 'fearful', $p = .01$; and 'dismissing', $p = .00$; but no significant findings were found for 'preoccupied', $p = .11$. These results show that there were very limited differences between the three groups in terms of their attachment styles. There was a relatively even spread of the four subscales across all three groups with no clear evidence of Group 1 showing higher levels of insecurity in their attachment styles to that of Group 3 (or Group 2).

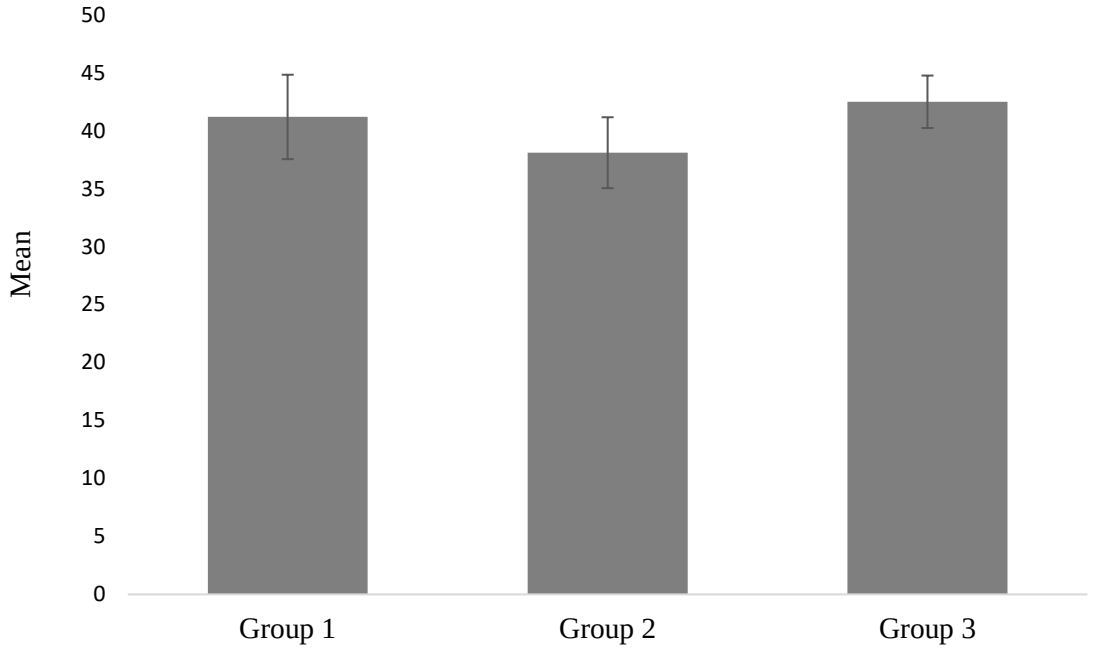

Figure 1. EQ mean scores across the three independent groups; error bars represent standard error of the mean at the 95% confidence interval.

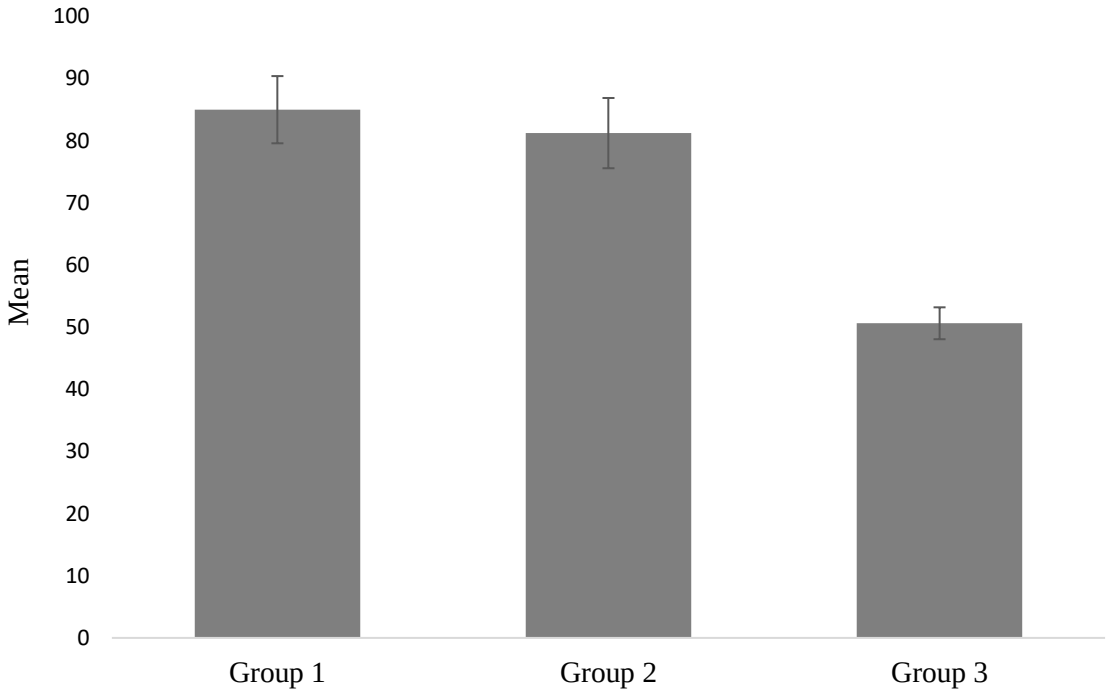

Figure 2. MOLEST mean scores across the three independent groups; error bars represent standard error of the mean at the 95% confidence interval.

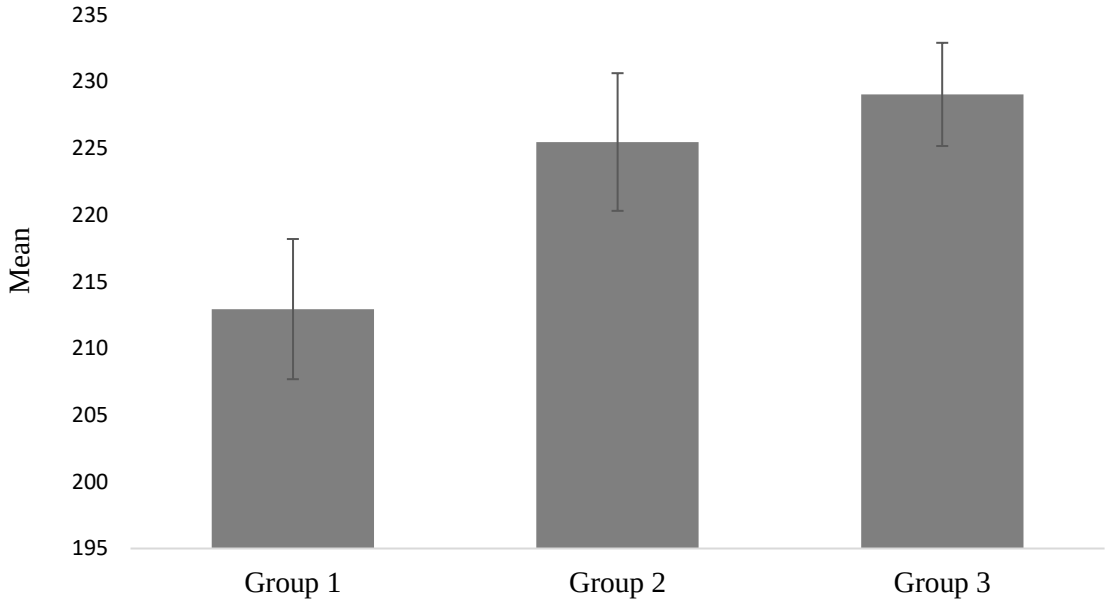

Figure 3. SRQ mean scores across the three independent groups; error bars represent standard error of the mean at the 95% confidence interval.

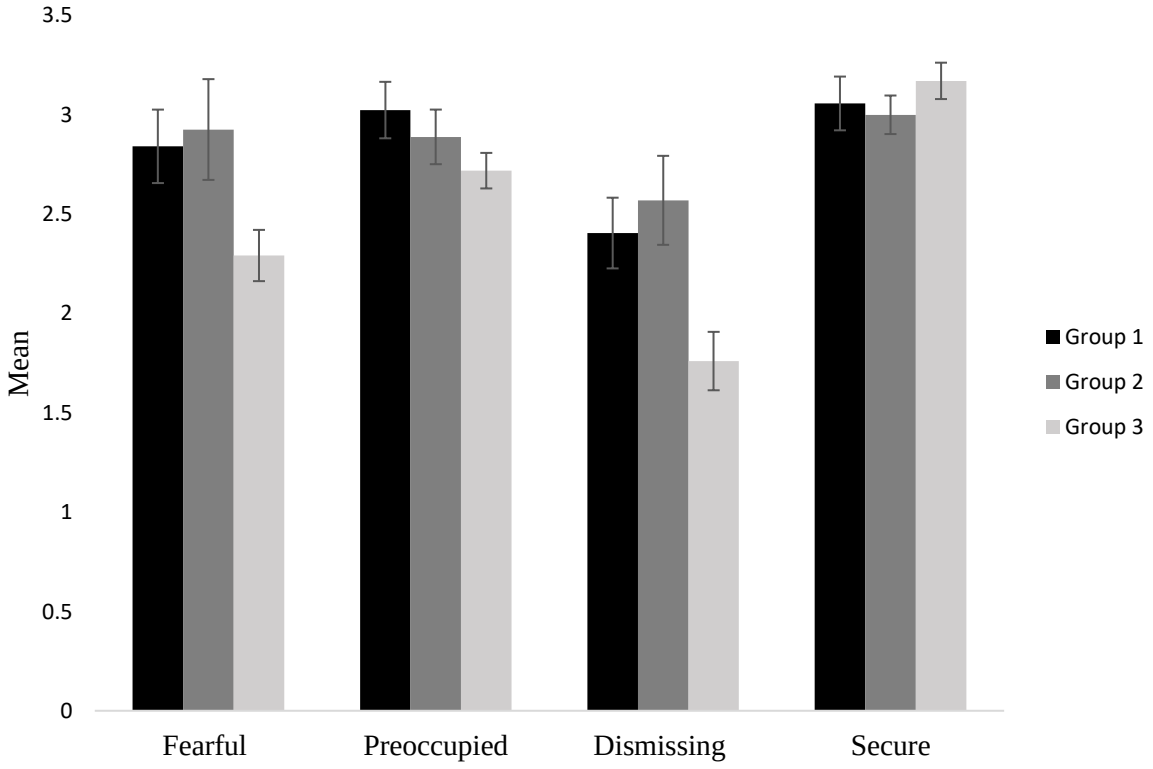

Figure 4: RSQ mean scores for the four subscales across the three independent groups; error bars represent standard error of the mean at the 95% confidence interval.

4. Discussion

The aim of the current study was to inform the prevention of child sexual abuse by comparing a group of MAPs, a sample of convicted child sexual offenders, and a second comparison sample from the general population, on four critical domains of functioning. The variables chosen were based on theories regarding the etiology of sexually abusive behaviour, and empirical factors linked with offending proclivity, to guide preventative treatment and ultimately assist with the prevention of initial offending. This was an exploratory study that sought to add to the small but growing literature regarding MAPS. Encouraging results were identified within this study and support for the hypotheses was evident. The most promising finding involved cognitive distortions, assessed using the MOLEST (Bumby, 1996). There was no statistically significant difference found between MAPs and convicted offenders, which was supportive of H1 and suggests that MAPs may present with a similar level of cognitive distortions in their views towards children and sex as those already convicted of child sexual offences. Additionally, support for H2 was also established in the planned contrast that showed there was a statistically significant difference between the pooled group of MAPs and convicted offenders (Group 1/2) when compared to the general population controls.

There was no evidence of difference across the three groups for empathy (assessed using the EQ; Baron-Cohen & Wheelwright. 2004) however MAPs and convicted offenders were both below the published normative score for adult men. MAPs overall, showed signs of impaired self-regulation as interpreted by the SRQ (Miller & Brown, 1991). A significant difference for self-regulatory capacity was evident between the three groups, and the post hoc comparison revealed that MAPs and convicted offenders were not statistically different from each other; showing support for H1. However, the planned contrast demonstrated no evidence to support H2, suggesting that MAPs and convicted offenders combined self-regulatory

capacity did not differ significantly from the controls. However, it is important to note that although these findings were not significant, Group 1 showed signs of impaired self-regulation according to the SRQ scale interpretation (Miller & Brown, 1991). This provides encouraging evidence that focusing development on self-regulatory capacity could be a critical component that should be considered in preventative treatment for this population. Adult attachment styles were mixed across the three groups; it was evident in all three groups that there was a relatively even spread of the four attachment prototypes. As mentioned previously, the main information that the current study aimed to extract from the RSQ (Griffin & Bartholomew, 1994) was whether or not MAPs (and convicted offenders) showed signs of insecure attachment, relative to controls. Insecure percentage proportions showed that MAPS (74%) and convicted offenders (83%) had a similarly high proportion of insecurely attached individuals, and pairwise comparisons revealed that the difference was not statistically significant, therefore, supportive of H1. However, there was no evidence to support H1, as the differences across the groups was not statistically different from each other for the secure prototype. Overall, there were mixed findings across the variables measured in this present study, with some support for the hypotheses identified; results pertaining to all four variables are discussed in more detail below, along with potential implications for preventative initiatives and links with extant theory and empirical research.

4.1 Cognitive distortions

The findings from this study reveal that cognitive distortions are very much present in at least the current sample of MAPs. These distorted views about children and sex at this stage of their potential offending pathway could possibly be a sign of individuals normalising or legitimatising their sexual thoughts about children (Ward & Keenan, 1999), which could, in turn, progress to these individuals committing an initial offence. In addition, relevant literature has shown that convicted child sex offenders display higher levels of cognitive

distortions compared to sex offenders with adult victims (Blumenthal et al., 1999) and non-offenders (Fisher et al., 1999). However, our findings show that MAPs, overall, presented with higher levels of cognitive distortions compared to the convicted offenders. Furthermore, the MOLEST scale is a clinical tool that is designed to measure ways in which sex offenders use justification, minimizations, rationalizations, and excuses for sexual activity with children (Bumby, 1996); this implies that MAPs could be attempting to defend their sexual interests by deeming them un-harmful (as they have not actually offended against a child at this point). Individual item comparisons were analysed for the MOLEST scale to determine which particular items had largest item difference in their scores (between MAPs and controls). It was found that item seven contained the largest item difference (i.e., Group 1 were more likely to 'agree' or 'strongly agree' indicated by higher scores, compared to Group 3); item seven read, "Having sexual thoughts and fantasies towards a child isn't all that bad because at least it is not really hurting the child". This raises potential concern that MAPs may be beginning to normalize their sexual interests towards children which could lead to engaging in their sexual thoughts and fantasies towards children (i.e., masturbation or child pornography), and in turn develop into further harmful behaviour (e.g., sexually offending against a child). As mentioned previously, the MAPs sample may have committed a 'non-contact' offence (i.e., distributing or viewing child sexual abuse material, voyeurism and/or exhibitionism). If some MAPs included in this study had engaged in some kind of non-contact offending and are presenting with a high level of cognitively distorted views between children and sex, it is possible that they may be at increased risk of offending (contact). In saying that, there is evidence in the literature which suggests that individuals who have engaged in non-contact offending, do not necessarily lead on to commit contact sexual offences (Seto, 2010). Therefore, these distorted views (particularly with regards to item 7, mentioned above) could be used as a protective factor to avoid offending. Protective factors

help individuals deal more effectively with stressful events in an attempt to eliminate risk, therefore, if MAPs believe that their sexual thoughts are not harmful as they would never hurt a child, this could potentially be sufficient to prevent them from offending. It is important to note that MAPs do not have control over their sexual preferences however, they can manage their behaviour by establishing protective factors to help them avoid acting on their sexual interests. This extends to the population of 'virtuous pedophiles' (VP) who are aware of their sexual interests however, they know that acting on these thoughts are wrong and for this very reason they genuinely believe that they would never commit an offence against a child (Cranney, 2017). Due to the methodology of recruitment for MAPs being online, it is quite likely that this current study included some individuals who self-identify as VP's in the sample. Further classification within the MAPs (i.e., those who have successfully refrained from offending and those who have committed a non-contact offence) may have allowed more accurate comparisons and interpretations of the results to be made so this should be considered for future research.

4.2 Empathy

Overall, the three subject groups showed no evidence of differential empathy levels; results therefore showed no support for H1 or H2 for this particular measure. The findings did show that MAPs (and convicted offenders) were overall below the normative average score for adult men which indicates that generalised empathy may need to be addressed in preventative treatments. On reviewing the relevant literature on empathy and its relation to sex offending, it is not so surprising that empathy was not a significant variable within this current study. This ties in with the mixed literature on generalised empathy and whether or not it should be a predominant factor addressed in treatment. As mentioned earlier, sex offender prevention research has found that victim empathy is one of the post powerful facets of treatment; it has been linked with improved outcomes and it helps sex offenders manage their behaviour

(Levenson et al., 2009; Levenson & Prescott, 2009; Marshall et al., 2001; Wakeling et al., 2005). However, it was not practical to examine specific victim empathy for this present study as MAPs by definition, do not have 'victims' currently so measuring generalised empathy was more reasonable.

4.3 Self-regulation

An important finding from the current study that should be emphasized was that MAPs showed signs of impaired self-regulation (as interpreted by their SRQ scores, Miller & Brown, 1991) compared to the convicted offenders and controls (convicted offenders and controls both presented with a moderate level of self-regulatory capacity). These findings provide encouraging evidence that focusing on the development of self-regulatory capacity would be beneficial in preventative treatments. Post hoc results showed that the difference was not significant between MAPs and convicted offenders; which is supportive of H1 however, it was surprising that significance was not reached given the mean difference appearing substantial between these two groups. It is possible that this could be explained by a small number of individuals in the MAPs sample who caused the average to be reduced by portraying a significantly lower self-regulatory capacity compared to the other MAPs in the sample. Despite this, the findings were supportive of H1 overall which encourages the assessment and development of self-regulation in preventative treatment for child sex offenders. It is important that MAPs are able to employ effective strategies to avoid offending. Baumeister and Heatherton (1996) described self-regulation as a controlled process, stating that the problem is not that people have impulses; but rather that they act on them. Therefore, if MAPs find themselves in high risk situations (e.g., alone with a child) they may lack the self-regulatory capacity to avoid offending. Despite their sexual interest, those who seek help may be more likely to fit with an avoidant approach to offending given the distress they experience regarding their sexual interests (Beir, 2016). It is also possible

that MAPs who go on to offend may follow an approach-automatic pathway, particularly those who do experience cognitive distortions regarding children and sex as this may impede their understanding of the need to avoid acting on their urges. Although those following an approach-goal pathway may logically be less likely to present for preventative treatment, these tentative findings suggest that this group may nonetheless also benefit from treatment aimed at enhancing self-regulation skills. These are possible explanations that could explain the current findings but because little is known about this particular population further research would be required to evaluate these possibilities (i.e., a study that attempts to classify a sample of MAPs into the SRM pathways).

4.4 Attachment style

As mentioned previously, the main finding that the current study aimed to extract from the RSQ was whether or not the MAPs sample showed signs of having insecure attachment and how this compared to the convicted offenders, and controls. The results for the dichotomous secure/insecure analyses revealed support for H1 (as MAPs and convicted offenders were not significantly different), but not for H2 (as no significant difference was found between Group 1/2 and Group 3). Adult attachment styles were mixed across the three groups; it was evident in all three groups that there was a relatively even spread of the four prototypes. Ward et al. (1996) stated that the RSQ scale can be used to assess individual's close relationships, romantic relationships or a specific relationship. The generalisation of this scale may be a potential validity barrier as the scale does not directly measure subject's adult attachment style in terms of intimate/romantic relations (the RSQ does not specify a particular relationship for the respondent to focus on while completing the questionnaire); therefore, this scale may not have reliably measured MAPs potentially, poor-quality attachments in adult relationships. On reflection, the concept of attachment anxiety may have been a more suitable potential risk factor to examine within this present study as Wood and

Riggs (2008) concluded that attachment anxiety is similar to a child sex offender's characteristic fear of rejection from adult romantic partners, and their preference for interacting with children. This could have provided a better interpretation of the difficulties MAPs may have with their adult relationships and provided a more sophisticated evidence base for the idea that child sex offenders prefer interacting with children due to the fear of rejection with adult romantic relationships (Wood & Riggs, 2008). Perhaps future research should examine the 'negative internal working models of self' as described in Griffin and Batholomew (1994) and Wood and Riggs (2008), to better understand the individual differences and difficulties (e.g., temperament, early experiences, and other socialisation experiences) in adult attachment patterns for the population of MAPs.

4.5 Demographic features of the sample

The demographic findings revealed that there was a significant difference in ages across the groups, and that the sample of MAPs were noticeably younger than the convicted offenders and controls. This is consistent with similar findings presented in the literature that MAPs are typically younger than convicted offenders (Cohen et al., 2018). This provides partial evidence for the statement made earlier in the introduction (providing the rationale for the hypotheses) that assumed that MAPs and convicted child sex offenders represent the same population sampled at different stages in their life course trajectory. This encourages the view that MAPs should seek help at an earlier stage to both improve their quality of life and assist with preventing potential victimization.

There was some evidence of diversity across ethnicities for this present study, however, the majority of participants were identified as NZ European or Caucasian. As mentioned in the method section, the convicted offenders were recruited from local prison sites and the general population controls were also predominantly recruited locally through

advertisements on University campus (thought these were also narrowly shared online, e.g., local Facebook pages, Neighbourly). In contrast, the MAP sample was recruited worldwide and substantial efforts were made to repeatedly post and share the studies advertisement across a broad range of web pages with the intention of maximising the sample size. These different recruitment methods explain the differential Māori ethnicity breakdown across the groups (i.e., Māori subjects were only present in Groups 2 (10.53%) and 3 (4.17%); but not in Group 1). This also explains the high percentage of individuals identifying as 'Caucasian' in Group 1, as opposed to 'NZ European;' which were more prominent within the convicted offenders and controls.

As mentioned in the results section, a small number of females completed the survey (despite clearly advertised eligibility criteria only seeking males) and a decision was made to remove their data so that the comparisons were not confounded given that only males were recruited for Group 2 (recruited from men's prison sites). With this being said, it is important to note that it is becoming increasingly clear that females do commit sexual crimes against children (Nathan & Ward, 2002). However, the vast majority of the previous prevention literature on child sex offenders that formed the basis of this study has been established on male samples. The exclusion of female participants should by no means be understood as females' data being less valuable. Research on female samples of child sex offenders and MAPs is of course crucial to better understanding this troubling behaviour therefore, future research should consider female participants to form a sample that is more representative of the population.

4.6 Supplementary questions

A set of supplementary questions were asked at the end of the survey to gain a more complete understanding of this sample given the study's exploratory nature; see Appendix 1

for the specific questions. One question in particular addressed MAP participants' sense of their 'risk,' that is, whether or not they feel they are at-risk of committing a contact sexual offence; results revealed that 81% of participants selected 'no'. This could potentially be viewed as providing additional support for the literature stating that sexual interests do not necessarily progress into offending behaviour (Seto et al., 2011). Although these individuals have admitted to being sexually interested in children, they do not feel as though they are at-risk of offending. This could potentially be providing evidence for the idea that the MAP sample included individuals from the online community of virtuous pedophiles (VP). VPs possess a very strong disposition that despite their atypical sexual preferences, they would never harm a child. The sample of MAPs in this current study could have consisted of some VP's due to the methodology of recruitment (i.e., online survey). This would therefore explain why the majority of participants selected 'no' to feeling at-risk of committing an offence despite being sexually interested in children. This could potentially confound our comparisons as the hypotheses of this study were based around the idea that MAPs are essentially following a similar pathway to that of the convicted offenders but at an earlier stage, whereas VPs are adamant that they will not offend. While this stance should be encouraged and supported, its predictive accuracy is unfortunately unknown. However, it is important to note that it is typically anecdotal for convicted offenders in treatment to declare the belief that they are no longer at risk and would never offend again, yet meta-analyses reveal that approximately 9.9% of convicted offenders do reoffend (Hanson et al., 2002). Overall, future research may benefit from more clearly distinguishing between VP's, MAP who successfully refrain from offending and, MAPs who have committed non-contact offences to provide a better understanding of these different groups and their potential offending proclivity (a much large sample size overall would be needed to do so). In addition, it could also be beneficial for a prospective long-term follow up of these different groups

(especially MAPs and VPs) although this could raise methodological and ethical issues regarding anonymity and confidentiality of the participants involved.

In addition, the other supplementary questions provided further interesting information about the samples that are worth mentioning. Both Group 1 and 2 were asked about the onset of their offending; refer to Appendix 1. In Group 1, 11 answered 12-14 years; five answered 15-17 years; one answered 11 years or under; and one answered 18-20 years (two participants chose not to respond). In comparison, Group 2 onset overall was much later; six answered somewhere under the age of 20; and the remaining participants selected much older ages, e.g., 31, 35, 48, 50 and 62 years. This outcome provides some support for the findings in Cohen et al. (2018) that MAPs tend to become aware of their atypical sexual interests in early adolescence. However, because the convicted offenders in the current sample reported a much later onset of sexual attraction towards children, this could suggest that MAPs are not actually following a similar pathway to the convicted offenders. The convicted offenders could have offended because they are more sexually deviant and/or impulsive and acted opportunistically (Richards, 2011), and their sexual interests are not specifically directed towards children. The convicted offenders were not explicitly asked whether they have sexual interests towards children, like the MAP participants were. This question may have been good to include, to more clearly identify among the convicted offenders, whether or not their sexual interests were aimed at children, or if their offending was more contributed to by another factor (i.e., impulse, aggression). This could also explain why some participants from Group 2 did not complete the additional questions (as they may not have seemed to directly apply to them).

Group 1 was asked about the effect their sexual interests has on their daily life; two participants answered ‘quite a lot’; six answered ‘not at all’; three answered ‘sometimes’; eight answered ‘a little bit’. Interestingly, the majority of participants who responded that

their sexual interests have minimal effect on their daily life selected that the frequency of their sexual interests are ‘every day’. This could again imply that that the MAPs sample included VPs who are less distressed about their atypical sexual interests having adopted a de-stigmatising and potentially empowering narrative regarding these.

Finally, participants were asked to respond to questions about treatment (i.e., whether participants in Group 1 had sought any help, and whether Group 2 had sought help *prior* to their offence). Only 2 participants from Group 2 had sought treatment (professional help for one, and trusted family member/friend for another). Six participants from Group 1 said they had not sought treatment because they ‘do not need help’ and 10 individuals said ‘yes’ they had sought help, either through online websites or professional help. The large number of convicted offenders who did not seek help prior to offending only further supports the implication that to prevent initial offending, MAPs should seek treatment at an early stage to reduce offending proclivity.

4.7 Limitations and future research

Some areas for future research have already been addressed throughout the discussion. In the following section the present study’s limitations as well as additional areas for future research stemming from these will be discussed.

The current study contained a number of limitations, with the most evident being the intrinsic issues with self-reported data. Thorough efforts were made to ensure the confidentiality and anonymity of participants; however, it is likely that some participants may not have been genuine in their responses, or indeed, may have been subject to self-deception. The MAPs study was posted worldwide on various social media sites which means many had access to it; although efforts were made to exclude anyone that did not meet criteria (i.e., exclusion of incentives and redirecting individuals out of the survey if they did not meet

criteria), these methods may not have been completely successful in excluding those not meeting the specific criteria of the study. Although a clear rationale for the exclusion of females has been presented, including only male subjects means that the samples were not representative of the whole population across the three comparison groups. The small sample size is an obvious limitation for the current study. A larger sample size would have provided more reliable results with greater precision and power to allow more plausible inferences about the samples to be made. Due to the sensitive nature of the study and particular offending type for the target groups, it was expected that there would be a relatively small sample size. The current study had a similar design to Cohen et al. (2018) (e.g., anonymous online survey) and they obtained a much larger sample size (N = 565 total) across a similar seven-month period. Their methodological procedure involved recruiting participants by the science director of B4U-ACT (an organisation in Isreal set up for the population of MAPs so they can improve communication and understanding), who contacted potential subjects through the organization's mailing list and other various means of contact. The design of the current study used to recruit MAPs participants could be better revised in terms of increasing the sample size. Efforts were made to gain permission to advertise the study in areas where MAPs may be more present (i.e., prevention websites, child sexual abuse prevention pages) however, high costs were a barrier that prevented the current study's advertisement from gaining visibility on a larger scale. Additionally, the barriers associated with the population of MAPs in terms of seeking help/treatment prior to offending identified by Levenson et al. (2017) could also help explain the smaller sample size. It was evident from Qualtrics that 83 people 'accessed' the MAP survey, which could potentially imply that some potential MAPs considered it but were hesitant to complete the survey. Overall, the methodology is subject to self-selection bias which again limits the generalisability of the findings; not all eligible

subjects would be computer literate or even comfortable disclosing information about their atypical sexual preferences online.

There could have been a potential systematic bias that confounded some of the comparisons in this present study, as individuals in the control group were excluded if they had been convicted of any criminal offence (as opposed to just being excluded if they had been convicted of a sexual offence). Furthermore, the inclusion criteria for the convicted offenders (Group 2) did not specify whether they were sexually interested in children. This was assumed as they had been convicted of sexually offending against a child. However, on reflection, their offending may not have been derived from persistent sexual thoughts about children (i.e., pedophilia) but rather they may have acted opportunistically or as a result of to some causal factor other than a sexual preference for children (Richards, 2011). This could confound the comparisons made with the convicted and MAP samples, so perhaps specific criteria and better definition surrounding individuals' sexual preferences should be addressed in future research. There was no distinction between MAPs who had acted on their sexual interests (e.g., non-contact offences) and MAPs who had successfully avoided offending. This could be seen as a limitation as the offenders who have refrained from any type of offending could present quite differently on the variables measured within this study (i.e., better self-regulation, more empathic, less cognitive distortions and/or more secure in their attachments). The supplementary data provides relatively strong support that some participants in the MAP sample could potentially identify as a member of the VP community. Therefore, grouping the various types of MAPs together may have distorted the findings. Distinguishing between these two different groups (e.g., MAPs – actors and MAPs – non-actors; Cohen et al., 2018) in future research could allow for stronger inferences to be made. The predictive dynamic risk factors present in this study do not present direct causal relationships (they feature in etiological theories so they do obtain some theoretical support

for being causal, but these are not definitive causal relationships), and there is no certainty that a person who has developed a sexual interest in children will inevitably offend in the future. Longitudinal research in this particular area would be beneficial to begin to develop causal inferences in the relationship between stable dynamic risk factors and initial offending.

4.8 Conclusion

The results from this current study offer a glimpse into better understanding the population of MAPs and the possible risk factors associated with initial offending. Due to the exploratory nature, the aim was to formulate a better understanding of the potential risk factors that are present within the relatively under-studied population of MAPs to guide preventative treatments. The results have offered promise for potential factors that should be addressed in treatment, however, replication of similar studies is needed to confirm our findings. Although there has been an emphasized focus throughout this paper that MAPs should ideally seek help prior to offending, we recognise that this is easier said than done. The barriers discussed in Levenson et al. (2017) imply that many individuals are hesitant to come forward and seek treatment however, this study has attempted to assist in developing preventative treatments so that those who are motivated to seek help can more easily get the treatment they need. Child abuse continues to occur across communities which indicates that social influences, the concept of acceptability, and fear of being judged are not enough to prevent offending. It is evident that the population of MAPs is living within our communities and that we need to continue to learn more about this population and their treatment needs at this crucial stage, including how to address and cease the development of dysfunctional behaviours to essentially prevent offending. We are hopeful that more research in this area will help guide treatment plans, provide a more informative understanding of the MAP population, and strengthen the strategies used for encouraging potential offenders to seek treatment prior to committing an initial offence.

5. References

Abel, G. G., Gore, D. K., Holland, C. L., Camps, N., Becker, J. V., & Rathner, J. (1989). The measurement of the cognitive distortions of child molesters. *Annals of sex research*, *2*(2), 135-152.

Arkowitz, S., & Vess, J. (2003). An evaluation of the Bumby RAPE and MOLEST scales as measures of cognitive distortions with civilly committed sexual offenders. *Sexual abuse: A journal of Research and Treatment*, *15*(4), 237-249.

Barnett, G., & Mann, R. E. (2013). Empathy deficits and sexual offending: A model of obstacles to empathy. *Aggression and violent behavior*, *18*(2), 228-239.

Baron-Cohen, S., & Wheelwright, S. (2004). The empathy quotient: an investigation of adults with Asperger syndrome or high functioning autism, and normal sex differences. *Journal of autism and developmental disorders*, *34*(2), 163-175.

Baumeister, R. F., & Heatherton, T. F. (1996). Self-regulation failure: An overview. *Psychological inquiry*, *7*(1), 1-15.

Beech, A. R. (1998). A psychometric typology of child abusers. *International Journal of Offender Therapy and Comparative Criminology*, *42*(4), 319-339.

Beech, A. R., Elliott, I. A., Birgden, A., & Findlater, D. (2008). The Internet and child sexual offending: A criminological review. *Aggression and violent behavior*, *13*(3), 216-228.

Beier, K. M. (2016). Proactive Strategies to Prevent Child Sexual Abuse and the Use of Child Abuse Images: The German Dunkelfeld-Project for Adults (PPD) and Juveniles (PPJ). In E. L. Jeglic & C. Calkins (Eds.), *Sexual Violence: Evidence Based Policy and Prevention* (pp. 249-272). Cham: Springer International Publishing.

Bickley, J. A., & Beech, A. R. (2002). An investigation of the Ward and Hudson pathways model of the sexual offense process with child abusers. *Journal of Interpersonal Violence, 17*(4), 371-393.

Bickley, J. A., & Beech, A. R. (2003). Implications for treatment of sexual offenders of the Ward and Hudson model of relapse. *Sexual Abuse: A Journal of Research and Treatment*, *15*(2), 121-134.

Blumenthal, S., Gudjonsson, G., & Burns, J. (1999). Cognitive distortions and blame attribution in sex offenders against adults and children. *Child abuse & neglect*, *23*(2), 129-143.

Boer, D. P. (Ed.). (2016). *The Wiley Handbook on the Theories, Assessment and Treatment of Sexual Offending*. John Wiley & Sons. John Wiley and Sons Ltd. West Sussex, UK. Chapters 1 & 5 (pg. 3-25, 103-125).

Bowlby, J. (1969). *Attachment and Loss: Attachment; John Bowlby*: Basic Books.

Bumby, K. M. (1996). Assessing the cognitive distortions of child molesters and rapists: Development and validation of the MOLEST and RAPE scales. *Sexual Abuse: A Journal of Research and Treatment, 8*(1), 37-54

Chu, C. M., Koh, L. L., Zeng, G., & Teoh, J. (2015). Youth who sexual offended: Primary human goods and offense pathways. *Sexual Abuse, 27*(2), 151-172.

Coe, R. (2002). It's the effect size, stupid: What effect size is and why it is important. doi: https://www.leeds.ac.uk/educol/documents/00002182.htm

Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences (2nd edition). Hillsdale, New Jersey: L.

Cohen, L., Ndukwe, N., Yaseen, Z., & Galynker, I. (2018). Comparison of self-identified minor-attracted persons who have and have not successfully refrained from sexual activity with children. *Journal of sex & marital therapy*, *44*(3), 217-230.

Cortoni, F., & Marshall, W. L. (2001). Sex as a coping strategy and its relationship to juvenile sexual history and intimacy in sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, *13*(1), 27-43.

Cumming, G., & Finch, S. (2005). Inference by eye: confidence intervals and how to read pictures of data. *American Psychologist*, *60*(2), 170.

Davis, D., Shaver, P. R., & Vernon, M. L. (2004). Attachment style and subjective motivations for sex. *Personality and Social Psychology Bulletin*, *30*(8), 1076-1090.

Endler, N. S., & Parker, J. D. (1990). Multidimensional assessment of coping: A critical evaluation. *Journal of personality and social psychology*, *58*(5), 844.

Fisher, D., Beech, A., & Browne, K. (1999). Comparison of sex offenders to nonoffenders on selected psychological measures. *International Journal of Offender Therapy and Comparative Criminology*, *43*(4), 473-491.

Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of personality and social psychology*, *67*(3), 430.

Gulliver, A., Griffiths, K. M., Christensen, H., & Brewer, J. L. (2012). A systematic review of help-seeking interventions for depression, anxiety and general psychological distress. *BMC psychiatry*, *12*(1), 81.

Hanson, R. K. (2003). Empathy deficits of sexual offenders: A conceptual model. *Journal of Sexual Aggression*, *9*(1), 13-23.

Hanson, R. K., Gordon, A., Harris, A. J., Marques, J. K., Murphy, W., Quinsey, V. L., & Seto, M. C. (2002). First report of the collaborative outcome data project on the effectiveness of psychological treatment for sex offenders. *Sexual Abuse: A journal of research and treatment*, *14*(2), 169-194.

Hanson, R. K., & Harris, A. J. (2000). Where should we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice and behavior*, *27*(1), 6-35.

Hanson, R. K., & Scott, H. (1995). Assessing perspective-taking among sexual offenders, nonsexual criminals, and nonoffenders. *Sexual Abuse: A Journal of Research and Treatment*, *7*(4), 259-277.

Hanson, R. K., & Morton-Bourgon, K. E. (2005). The characteristics of persistent sexual offenders: a meta-analysis of recidivism studies. *Journal of consulting and clinical psychology*, *73*(6), 1154.

Hemphill, J. F., Hare, R. D., & Wong, S. (1998). Psychopathy and recidivism: A review. *Legal and criminological Psychology*, *3*(1), 139-170.

Harris, A. J. R., & Hanson, R. K. (2010). Clinical, actuarial and dynamic risk assessment of sexual offenders: Why do things keep changing?. *Journal of Sexual Aggression*, *16*(3), 296-310.

Hoffman, M.L. (1987). The contribution of empathy to justice and moral development. In N. Eisenberg, & J. Strayer (Eds.), Empathy and its development (pp. 47-80). New York: Cambridge University Press

Jahnke, S., & Hoyer, J. (2013). Stigmatization of people with pedophilia: A blind spot in stigma research. *International Journal of Sexual Health*, *25*(3), 169-184.

Johnston, L., & Ward, T. (1996). Social cognition and sexual offending: A theoretical framework. *Sexual Abuse: A Journal of Research and Treatment*, *8*(1), 55-80.

Jones, T., & Wilson, D. (2009). When thinking leads to doing: The relationship between fantasy and reality in sexual offending. *Violent and Sexual Offenders: Assessment, treatment and management*, 235-256.

Kingston, D. A., Yates, P. M., & Firestone, P. (2012). The self-regulation model of sexual offending: Relationship to risk and need. *Law and Human Behavior*, *36*(3), 215.

Kingston, D. A., Yates, P. M., & Olver, M. E. (2014). The self-regulation model of sexual offending: Intermediate outcomes and posttreatment recidivism. *Sexual Abuse*, *26*(5), 429-449.

Kramer, R. (2011). The DSM and the stigmatization of people who are attracted to minors. In *Pedophilia, minor-attracted persons, and the DSM: Issues and controversies. Symposium conducted at the meeting of the B4U-ACT, Inc., Westminster, MD. Retrieved from http://www. b4uact. org/science/symp/2011/Proceedings. pdf*.

Lakens, D. (2013). Calculating and reporting effect sizes to facilitate cumulative science: a practical primer for t-tests and ANOVAs. *Frontiers in psychology*, *4*, 863.

Lasher, M. P., & Stinson, J. D. (2017). Adults with pedophilic interests in the United States: Current practices and suggestions for future policy and research. *Archives of sexual behavior*, *46*(3), 659-670.

Levenson, J. S., Macgowan, M. J., Morin, J. W., & Cotter, L. P. (2009). Perceptions of sex offenders about treatment: Satisfaction and engagement in group therapy. *Sexual Abuse*, *21*(1), 35-56.

Levenson, J. S., & Prescott, D. S. (2009). Treatment experiences of civilly committed sex offenders: A consumer satisfaction survey. *Sexual Abuse*, *21*(1), 6-20.

Levenson, J. S., Willis, G. M., & Vicencio, C. P. (2017). Obstacles to help-seeking for sexual offenders: Implications for prevention of sexual abuse. *Journal of child sexual abuse*, *26*(2), 99-120.

Levine, J. A., & Dandamudi, K. (2016). Prevention of child sexual abuse by targeting pre-offenders before first offense. *Journal of child sexual abuse*, *25*(7), 719-737.

Lindsay, W. R., Ward, T., Morgan, T., & Wilson, I. (2007). Self-regulation of sex offending, future pathways and the Good Lives Model: Applications and problems. *Journal of Sexual Aggression*, *13*(1), 37-50.

Mann, R. E., Hanson, R. K., & Thornton, D. (2010). Assessing risk for sexual recidivism: Some proposals on the nature of psychologically meaningful risk factors. *Sexual Abuse*, *22*(2), 191-217.

Marlatt, G. A., & George, W. H. (1984). Relapse prevention: Introduction and overview of the model. *British journal of addiction*, *79*(4), 261-273.

Marshall, W. L., Cripps, E., Anderson, D., & Cortoni, F. A. (1999). Self-esteem and coping strategies in child molesters. *Journal of Interpersonal Violence*, *14*(9), 955-962.

Marshall, W. L., Hamilton, K., & Fernandez, Y. (2001). Empathy deficits and cognitive distortions in child molesters. *Sexual Abuse*, *13*(2), 123-130.

Marshall, W. L., Hudson, S. M., & Hodkinson, S. (1993). The importance of attachment bonds in the development of juvenile sex offending. *The juvenile sex offender*, 164-181.

Marshall, W. L., Hudson, S. M., Jones, R., & Fernandez, Y. M. (1995). Empathy in sex offenders. *Clinical psychology review*, *15*(2), 99-113.

Marshall, W. L., Jones, R., Hudson, S. M., & McDonald, E. (1994). Generalized empathy in child molesters. *Journal of Child Sexual Abuse*, *2*(4), 61-68.

Marshall, W. L., & Marshall, L. E. (2010). Attachment and intimacy in sexual offenders: An update. *Sexual and Relationship Therapy*, *25*(1), 86-90.

Marshall, W. L., & Maric, A. (1996). Cognitive and emotional components of generalized empathy deficits in child molesters. *Journal of Child Sexual Abuse*, *5*(2), 101-110.

Marshall, W. L., Serran, G. A., & Cortoni, F. A. (2000). Childhood attachments, sexual abuse, and their relationship to adult coping in child molesters. *Sexual Abuse: A Journal of Research and Treatment*, *12*(1), 17-26.

Ministry of Justice (2016). Number of people convicted of sexual offences against a child or young person (aged 16 years or younger) in 2015, by offending history. Unpublished dataset released to S. Christofferson.

Ministry of Women's Affairs (2009). *Restoring Soul: Effective Interventions for adult victims/survivors of sexual violence.* MWA: Wellington

Ministry of Women's Affairs (2012). *Lightning Does Strike Twice: Preventing Sexual Revictimsation*

Richards, K. (2011). Misperceptions about child sex offenders. *Trends and issues in crime and criminal justice*, (429), 1.

Richardson, J. T. (2011). Eta squared and partial eta squared as measures of effect size in educational research. *Educational Research Review*, *6*(2), 135-147.

Saied-Tessier, A. (2014). *Estimating the costs of child sexual abuse in the UK*. London: NSPCC.

Seto, M. C., Hanson, K. R., & Babchishin, K. M. (2011). Contact sexual offending by men with online sexual offenses. *Sexual Abuse, 23*(1), 124-145.

Wakeling, H. C., Webster, S. D., & Mann, R. E. (2005). Sexual offenders' treatment experience: A qualitative and quantitative investigation. *Journal of Sexual Aggression, 11*(2), 171-186.

Ward, T. (2000). Sexual offenders' cognitive distortions as implicit theories. *Aggression and Violent Behavior, 5*(5), 491-507.

Ward, T., & Beech, A. R. (2015). Dynamic risk factors: A theoretical dead-end?. *Psychology, Crime & Law, 21*(2), 100-113.

Ward, T., & Casey, A. (2010). Extending the mind into the world: A new theory of cognitive distortions in sex offenders. *Aggression and Violent Behavior, 15*(1), 49-58.

Ward, T., & Keenan, T. (1999). Child molesters' implicit theories. *Journal of interpersonal violence, 14*(8), 821-838.

Ward, T., & Hudson, S. M. (1996). Relapse prevention: A critical analysis. *Sexual Abuse, 8*(3), 177-200.

Ward, T., & Hudson, S. M. (1998). A model of the relapse process in sexual offenders. *Journal of Interpersonal Violence, 13*(6), 700-725.

Ward, T., & Hudson, S. M. (2000). A self-regulation model of relapse prevention. *Remaking relapse prevention with sex offenders: A sourcebook*, 79-101.

Ward, T., Hudson, S. M., Johnston, L., & Marshall, W. L. (1997). Cognitive distortions in sex offenders: An integrative review. *Clinical Psychology Review*, *17*(5), 479-507.

Ward, T., Hudson, S. M., & Keenan, T. (1998). A self-regulation model of the sexual offense process. *Sexual Abuse*, *10*(2), 141-157.

Ward, T., Hudson, S. M., Marshall, W. L., & Siegert, R. (1995). Attachment style and intimacy deficits in sexual offenders: A theoretical framework. *Sexual Abuse: A Journal of Research and Treatment*, *7*(4), 317-335.

Ward, T., Hudson, S. M., & Marshall, W. L. (1996). Attachment style in sex offenders: A preliminary study. *Journal of Sex Research*, *33*(1), 17-26.

Webster, S. D. (2005). Pathways to sexual offense recidivism following treatment: An examination of the Ward and Hudson self-regulation model of relapse. *Journal of Interpersonal Violence*, *20*(10), 1175-1196.

Witkiewitz, K., & Marlatt, G. A. (2004). Relapse Prevention for Alcohol and Drug Problems: That Was Zen, This Is Tao. *American Psychologist*, *59*(4), 224-235. doi:10.1037/0003-066X.59.4.224

Wood, E., & Riggs, S. (2008). Predictors of child molestation: Adult attachment, cognitive distortions, and empathy. *Journal of Interpersonal Violence*, *23*(2), 259-275.

Wurtele, S. K., Simons, D. A., & Parker, L. J. (2018). Understanding Men's Self-Reported Sexual Interest in Children. *Archives of sexual behavior*, 1-10.

Yates, P. M., & Kingston, D. A. (2006). The self-regulation model of sexual offending: The relationship between offence pathways and static and dynamic sexual offence risk. *Sexual Abuse: A Journal of Research and Treatment*, *18*(3), 259-270.

Yates, P. M., Prescott, D., & Ward, T. (2010). Applying the good lives and self-regulation models to sex offender treatment. *Brandon: Safer Society*.

6. Appendix 1.

Group 1 (MAPs) supplementary questions

1. When did you first develop a sexual interest in persons under the age of 16? (Onset)
2. How often do you have sexual thoughts towards persons under the age of 16? (Frequency)
3. Does having sexual thoughts towards persons under the age of 16 impact your daily life?
4. Despite any sexual thoughts/interests you may be having, do you feel that you are at risk of committing a contact sexual offence against a person(s) under the age of 16?
5. Have you ever sought any help in regards to these thoughts/interests?

   If yes:
6. What type of help did you seek?

   If no:
7. Why have you never sought any help?

Group 2 (convicted child sex offenders) supplementary questions

1. When did you first develop a sexual interest towards person under the age of 16? (Onset)
2. How often do you have sexual thoughts towards persons under the age of 16? (Frequency)
3. Prior to your offence, did you ever seek any help in regards to these thoughts/interest?

   If yes:
4. What type of treatment did you seek?

   If no:
5. Why did you never seek help?